# CATALOGUE

OF THE

# BIRDS

IN THE

# BRITISH MUSEUM.

VOLUME VI.

LONDON:
PRINTED BY ORDER OF THE TRUSTEES.
1881.

# CATALOGUE

OF THE

# PASSERIFORMES,

OR

# PERCHING BIRDS,

IN THE

COLLECTION

OF THE

# BRITISH MUSEUM.

BRITISH MUSEUM
NATURAL HISTORY

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## CICHLOMORPHÆ: Part III.

CONTAINING THE FIRST PORTION OF THE FAMILY

## TIMELIIDÆ

(Babbling-Thrushes).

BY

R. BOWDLER SHARPE.

LONDON:
PRINTED BY ORDER OF THE TRUSTEES.
1881.

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# PREFACE.

The Sixth Volume of the 'Catalogue of Birds in the British Museum' has been prepared by Mr. R. B. Sharpe, author of the first four volumes of this work. Various causes have somewhat delayed its publication; but it is hoped that the succeeding volume (which will conclude the family *Timeliidæ*, and which has made considerable progress) will appear within the space of a twelvemonth, as also that, with additional extraneous help, the work generally will make more rapid progress than has hitherto been possible.

ALBERT GÜNTHER,
*Keeper of the Department of Zoology.*

British Museum,
December 1881.

# INTRODUCTION.

The present volume treats of the first portion of the large family *Timeliidæ*, or Babbling-Thrushes, a group which is largely represented in the Old World, but contains only a few members in the American continents. Five subfamilies have been described in the present volume, viz. the Bulbuls, the Wrens, the Mocking-Thrushes, the Solitaires, and the Bower-birds.

The total number of species enumerated is 407; and of these the Museum possesses 315. The specimens in the collection are 1508 in number. The gaps in the series are principally among the South-American Wrens, of which it is peculiarly difficult to procure examples.

Of the many important additions that have been made to the collection during the past two years, the most notable (that of the collection of the late Mr. Gould) was not acquired before part of the present volume was in the printer's hands, and consequently the additions which it brought have had to be relegated to the "Addenda" at the end of the volume.

The author takes the present opportunity of returning his sincere thanks to Capt. Wardlaw Ramsay, who lent him his entire series of Bulbuls and Wrens for comparison with the Museum collection of skins. The number of types in the Tweeddale collection rendered this act of kindness of the greatest value in the preparation of this volume.

Again, the author cannot too deeply acknowledge the assistance which he has received from Messrs. Osbert Salvin and F. Ducane Godman, who have lent him from time to time their excellent series of the American species described in this book, without which service it would have been almost impossible to complete the volume; Dr. Sclater and Capt. Shelley have also lent him many valuable and rare birds.

In various ways the author has received valuable assistance and loans of specimens from the following gentlemen:—Prof. Newton, Prof. Alphonse Milne-Edwards, Prof. Schlegel, A. O. Hume, Esq., C.B., Eugene Oates, Esq., Prof. Barboza du Bocage, Col. Godwin-Austen, H. E. Dresser, Esq., Henry Seebohm, Esq., Edward Hargitt, Esq., Canon Tristram, and Count Salvadori.

As in the preceding volumes, the affixes to the names of donors &c., in the third column of the list of specimens, may be explained as follows:—"[P.]" means "Presented by;" "[C.]"="Collected by;" "[E.]"="Obtained by exchange." Where none of these signs are employed, the specimens were purchased. In some cases the sexes of the specimens are enclosed in brackets, as "[♂]." This is to indicate that, although the author has no doubt in his own mind that the specimen is a *male*, the label attached to the individual bears no indication of the sex. Sometimes, too, the locality of a specimen will be seen enclosed in brackets, as "[New South Wales]." This is intended to show that the specimen is labelled "New South Wales," but the author has reason to doubt the correctness of the locality.

R. BOWDLER SHARPE.

British Museum,
Dec. 26, 1881.

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BRITISH MUSEUM
NATURAL HISTORY

CATALOGUE

OF

# BIRDS.

## Order II. PASSERIFORMES

(Cat. B. vol. iii. p. 1).

## Suborder I. PASSERES

(Cat. B. vol. iii. p. 1).

### Group II. CICHLOMORPHÆ

(Cat. B. vol. iv. p. 6).

### Family TIMELIIDÆ

(Cat. B. iv. p. 7).

Bill very similar to that of the Thrushes and Warblers (*Turdidæ*: cf. vol. v. p. 1); wings rounded and short, concave, so as to fit close to the body. Birds generally of limited migration.

*Synopsis of Subfamilies.*

*a.* Tarsi short, not exceeding the length of the bill measured from gape; rictal bristles, as a rule, numerous and strong ..... *BRACHYPODINÆ*

*b.* Tarsi long, exceeding the length of the bill measured from gape; no rictal bristles .... *TROGLODYTINÆ.*

*c.* Tarsi long, exceeding the length of the bill measured from the gape; rictal bristles distinct, though varying in number ..... *TIMELIINÆ* (proper).

## Subfamily I. BRACHYPODINÆ.

*Key to the Genera.*

*a.* Nostrils exposed, not hidden by bristles.
*a'.* Rictal bristles scanty, not extending beyond the hinder edge of the nostril.
*a''.* Wings rounded; the distance between the tips of the primaries and the tips of the secondaries less than the length of the tarsus. [p. 4.
*a'''.* Bill shorter than tarsus ..... 1. ÆGITHINA,
*b'''.* Bill equal to tarsus ..... 2. AETHORHYNCHUS, [p. 13.
*c'''.* Bill longer than the tarsus ..... 3. CHLOROPSIS,
*b''.* Wings more pointed; the distance between the tips of the primaries and the tips of the secondaries more than the length of the tarsus. [p. 15. [p. 35.
*d'''.* Tarsus plain in front ..... 4. HYPSIPETES,
*e'''.* Tarsus scutellated in front ..... 5. IXOCINCLA,
*b'.* Rictal bristles more strongly developed and reaching beyond the anterior edge of the nostril. [p. 44.
*c''.* Culmen longer than tarsus, or equal to it.
*f'''.* Tarsal envelope without transverse scutes, or with only a subterminal one.
*a*⁴. Nostrils oval, with a distinct superior membrane, which usually shuts in the nasal opening, and reduces it to a narrow slit.
*a*⁵. Tail square ..... 6. HEMIXUS, p. 48.
*b*⁵. Tail rounded.
*a*⁶. Bill long and rather broad, broader than high at nostrils; feathers of head pointed, and forming a more or less distinct crest.
*a*⁷. Without a banded tuft of feathers on the lower back..... 7. IOLE, p. 54.
*b*⁷. On each side of the lower back a large tuft of conspicuous feathers, banded with black and white.
*a*⁸. With no wattle round the eye. 8. PINAROCICHLA,
*b*⁸. With a fleshy wattle round the eye ..... 9. POLIOLOPHUS, [p. 61.
*b*⁶. Bill stouter, shorter, and more conical, higher than broad at nostrils; feathers of head rounded; no crest ..... 10. MICROPUS, [p. 63.
*b*⁴. Nostrils rounded ovals and more open, the membrane very large posteriorly, leaving the anterior opening much exposed. [p. 64.
*c*⁵. No long hairs springing from the centre of the back.
*c*⁶. Tarsus longer than middle toe and claw ..... 11. CRINIGER, [p. 70.

$d^6$. Tarsus shorter than middle toe and claw ..... 12. TRICHOPHO-
$d^5$. A bunch of long hairs springing from the centre of the back..... 13. TRICHOLESTES, [ROPSIS, p. 88.
$g'''$. Tarsal envelopes with distinct scutes; head much crested ..... 14. ALCURUS, [p. 89.
$d''$. Tarsus longer than culmen. [p. 91.
$h'''$. Height of bill at nostril not equal to length of the gonys; nostrils exposed.
$c^4$. Nostrils oval, bare, with a posterior, not a superior membrane. [p. 93.
$e^5$. With no conspicuous nuchal hairs .. 15. TRACHYCOMUS,
$f^5$. With conspicuous nuchal hairs..... 16. XENOCICHLA,
$d^4$. Nostrils oval, with a superior membrane. [p. 94.
$g^5$. Bill serrated, the edge of the upper mandible with minute notches ..... 17. ANDROPADUS,
$h^5$. Bill not serrated, the mandible with the usual subterminal notch. [p. 106.
$c^6$. Bill about equal in height and breadth at the nostrils.
$c^7$. Wing shorter than the tail, or about equal to it, the difference in length not so much as the length of the tarsus.
$c^8$. Tarsal envelope with distinct transverse scutes.
$a^9$. Bill rather stout and conical, measuring at gape more than the hind toe itself without claw; bill shorter than head..... 18. CHLOROCI-
$b^9$. Bill very long and thin, as long as the head, and measuring at gape not so much as hind toe and claw..... [CHLA, p. 112.
19. PHYLLOSTRO-
$c^9$. Bill rather broad, measuring at gape as much as the outer toe and claw ..... [PHUS, p. 115.
20. IXONOTUS,
$d^8$. Tarsal envelope entire, or with a single subterminal scute. [p. 118.
$d^9$. Bill rather long and thin, the culmen exceeding the length of the middle toe and claw; the gonys perceptibly up-curved.
*aa*. Head more or less crested, but never very conspicuously; the crest-feathers less than the tarsus in length ..... 21. PYCNONOTUS,
*bb*. Head very conspicuously crested, the long plumes exceeding the length of the tarsus..... [p. 120.
[p. 157.
22. OTOCOMPSA,

$e^9$. Bill somewhat stout, the culmen not as long as the middle toe; gonys nearly straight; head fully crested, the feathers rounded .... 23. KELAARTIA, [p. 162.

$d'$. Wing long, exceeding the length of the tail by as much as the length of the tarsus..... 24. TYLAS, p. 163.

$i'''$. Bill broader than it is high ..... 25. RUBIGULA, [p. 166.

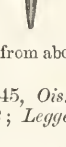
*b*. Nostrils hidden by dense plumes.

*c'*. Height of bill at nostrils about equal to the length of gonys ..... 26. SPIZIXUS, [p. 172.

*d'*. Height of bill at nostrils less than length of gonys ..... 27. IRENA, p. 174.

## 1. ÆGITHINA *.

| | Type. |
|---|---|
| Ægithina, *Vieill. Analyse*, p. 144 (1816) ..... | I. typhia. |
| Iora, *Horsf. Trans. Linn. Soc.* xiii. p. 151 (1820) .... | I. scapularis. |



Bill of *Ægithina tiphia*, from above, to show rictal bristles.

Cf. *Hartl. Mag. de Zool.* 1845, *Ois.*, texte to pl. 60; *Hume, Stray Feathers*, 1877, pp. 420–452; *Legge, Birds of Ceylon*, pp. 490–492.

*Range.* India and Ceylon, Burmese countries, Malayan peninsula, and Indo-Malayan Islands.

*Key to the Species.*

*a*. Green below as well as above, with a spot of yellow above and below the eye ..... *viridissima*, p. 6.

*b*. Yellow below ..... *tiphia*, p. 7.

*a'*. Tail black, the feathers margined with yellow, or tail greenish with yellow edges.

*a''*. Head and back black always in full plumage; second wing-band formed by white tips to greater coverts often absent; edges to primaries often obsolete ..... *a. zeylonica.*

*b''*. Similar to the foregoing, but not so deep a green on the lower back ..... *β.* Pale race of *Æ. zeylonica.*

---

* Mr. Hume would set aside *Ægithina* of Vieillot (founded on his *Sylvia leucoptera*, and *not*, as Prof. Sundevall states, on "Le Quadricolor" of Levaillant), on account of the insufficient description of the *Fauvette leucoptère*. No one, however, examining the plate can doubt that it is *Iora tiphia* (Linn.), wrongly described as from America; and therefore *Iora* of Horsfield is superseded by *Ægithina* of Vieillot.

c''. Head and back in adult mixed with black, the feathers edged with black; often no black at all on rest of upper surface, but head and back sometimes entirely black, like *Æ. zeylonica* .. γ. *tiphia*.
d''. Males and females alike, the male with green tail also; never any black on head and back; white scapular-feathers scarcely developed .. δ. *scapularis*, p. 12.
e''. Like the foregoing, but brilliant yellow below; lores and forehead golden yellow; white scapular-feathers very distinct ..... ε. *viridis*, p. 11.
b'. Tail-feathers broadly margined and tipped with white..... *nigrolutea*, p. 12.

*Obs.* Mr. Hume, in a thoroughly exhaustive paper entitled "Remarks on the Genus *Iora*" ('Stray Feathers,' 1877, p. 423), has given the results of his studies, based on the specimens of *Iora* in his own collection. By the kindness of Capt. Wardlaw Ramsay I have had the specimens in the Tweeddale collection to examine. These, added to the good series in the British Museum, have placed at my disposal a set of materials which, though not equalling Mr. Hume's in respect of birds from the Indian peninsula, is very rich in Indo-Malayan examples; and I am thus enabled to complete the history of the genus in the localities where Mr. Hume's material was insufficient. I may premise, however, that Mr. Hume's conclusions with regard to *Ægithina tiphia* and its races are thoroughly borne out by the series I have examined.

A concise account of the results obtained by me would be as follows:—

1. *Æ. viridissima* and *Æ. nigrilutea* are both distinct species. *Æ. tiphia* is the most widely-spread form, and embraces five races or subspecies, which cannot infallibly be recognized.

2. The *females* of all the races of *Æ. tiphia* are not to be distinguished one from the other.

3. In Southern India and Ceylon the full-plumaged birds are black on the head and back. Birds with more or less black are found in other parts of the Indian peninsula and the Burmese countries; but black-backed birds are rather the exception than the rule. In the Malayan peninsula, however, black-backed birds again occur, not to be distinguished from South-Indian specimens.

4. In East Central India there is a black-backed form like *Æ. zeylonica*, but easily distinguishable by its paler coloration. This race is duly noticed by Mr. Hume (*t. c.* p. 439), and I have seen many specimens of it.

5. *Æ. scapularis* from Java never has any black on the males, which appear to resemble the females, excepting in being a little darker on the wings.

6. *Æ. viridis* from Sumatra and Borneo is the *Æ. scapularis* of authors, from the above-mentioned islands. From an examination of numerous individuals I am certain that it never has a black-backed stage of plumage; and it might be considered a distinct species were it not that the adult males can be matched by others from Ceylon, in the stage of plumage which they assume before getting

the black head and back, but when they are brilliant yellow below with black wings and tail. Many Malaccan specimens are also identical with Bornean, and would have been referred by me to *Æ. viridis* but for the likelihood of their being black-backed *Æ. tiphia* in its second or black-tailed stage. The yellow forehead observable in fully adult Bornean birds would seem to be peculiar to them.

7. For convenience I have kept the synonymy of the Javan and Bornean birds distinct; but they can scarcely be called really distinct species.

### 1. Ægithina viridissima.

Iora scapularis (pt., *nec Horsf.*), *Blyth, J. A. S. Beng.* xiv. p. 602; *Horsf. & Moore, Cat. B. E.I. Co. Mus.* i. p. 265; *Blyth, Ibis*, 1867, p. 10.

Iora viridissima, *Bp. Consp.* i. p. 307 (*ex Temm. MS. in Mus. Lugd.* *); *Sclater, P. Z. S.* 1863, p. 219; *Salvad. Ucc. Born.* p. 192; *Hume, Str. F.* 1877, p. 427, 1878, p. 327, 1879, pp. 63, 99; *Sharpe, Ibis*, 1879, p. 256; *id. P. Z. S.* 1879, p. 339.

Ægithina scapularis (pt.), *Gray, Hand-l. B.* i. p. 316, no. 4727.

Ægithina viridis, *Gray, Hand-l. B.* i. p. 316, no. 4728 (*nec Bp.*).

Iora chloroptera, *Salvad. Ucc. Born.* p. 192 (♀); *Hume, Str. F.* 1877, p. 428.

Ægithina viridissima, *Tweedd. Ibis*, 1877, p. 304, pl. v.; *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 216.

*Adult male.* General colour very dark grass-green, a little lighter on the lower back and rump, where the plumage is somewhat varied with greyish bases to the feathers; upper tail-coverts and tail black; scapulars black; wings black, with a double wing-bar of white, formed by the broad white ends to the greater and median series of coverts; quills narrowly edged with green, the inner secondaries margined with yellowish green on both webs, inclining to white near the end of the feathers; sides of face dark grass-green, the lores black; above the eye a narrow yellow line, and below the eye a larger yellow spot; under surface of body deep grass-green, paler on the lower breast; the lower abdomen and under tail-coverts bright yellow; thighs yellow, with black bases; flanks with a long silky white tuft; under wing-coverts white, washed with yellow, the edge of the wing yellow; axillaries white; quills ashy black below, white along the edge of the inner web. Total length 5·2 inches, culmen 0·65, wing 2·35, tail 1·9, tarsus 0·7.

*Obs.* The soft parts given by Mr. Hume are as follows:—"Legs and feet plumbeous blue; claws black; lower mandible, gape, and a line on each side of upper mandible dark plumbeous blue; rest of upper mandible black or blackish brown; irides dark to reddish brown."

*Adult female.* General colour above grass-green, the lesser wing-coverts like the back; median and greater coverts dusky blackish, tipped with yellow or yellowish white, forming a double bar across the wings; quills blackish, externally edged with greenish yellow, broader on the secondaries, the innermost being margined with yellow on both webs, inclining to white at the end of the feathers;

* Type examined in the Leyden Museum.

tail-feathers dull yellowish green, edged with yellow along the inner web; sides of face green, not so dark as the back, and slightly washed with yellow; the ear-coverts streaked with yellow; lores and a ring of feathers round the eye bright yellow; under surface of body greenish yellow, brighter yellow on the cheeks and throat, and again on the under tail-coverts; a large tuft of silky white plumes on the flanks; under wing-coverts white, washed with yellow; axillaries white. Total length 5·1 inches, culmen 0·65, wing 2·25, tail 1·6, tarsus 0·7.

It should be noted that Capt. Wardlaw Ramsay collected a specimen in Malacca which is marked *female*, and which is similar in plumage to the male. The soft parts were:—"Bill slaty, ridge of upper mandible and tip black; legs bluish slate; iris bright brown."

*Young male.* Not to be distinguished from the old female: "bill black, the mandible grey; legs leaden grey; iris white" (*H. Everett*). Total length 4·8 inches, culmen 0·65, wing 2·25, tail 1·85, tarsus 0·7.

The All-green Dwarf Bulbul is found in Borneo, Sumatra, and the Malayan peninsula, ranging as high as Province Wellesley.

| | | |
|---|---|---|
| *a, b.* [♂ ♀] ad. sk. | Malacca (*Dr. Cantor*). | India Museum. |
| *c.* [♀] ad. sk. | Malacca. | India Museum. |
| *d.* ♂ ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *e.* [♀] ad. sk. | Sumatra (*Castelnau*). | A. R. Wallace, Esq. [C.]. |
| *f.* [♀] ad. sk. | Borneo. | Zoological Society. |
| *g.* ♂ ad. sk. | Labuan. | Hugh Low, Esq. [C.]. |
| *h.* ♂ ad. sk. | Sarawak. | Henry Everett, Esq. [C.]. |
| *i.* ♀ ad. sk. | Tagora, Sarawak, June 1877. | Henry Everett, Esq. [C.]. |
| *k.* ♂ ad. sk. | Paku, Sarawak, Dec. 1878. | Henry Everett, Esq. [C.]. |
| *l.* ♂ juv. sk. | Upper Sarawak, Sept. 1878. | Henry Everett, Esq. [C.]. |
| *m.* ♂ ad. sk. | Banjermassing. | J. Motley, Esq. [C.]. |
| *n.* ♀ ad. sk. | Malacca. | India Museum. |
| *o, p.* ♂ ♀ ad. st. | Borneo. | Purchased. |
| *q.* ♂ ad. st. | Borneo. | Purchased. |

## 2. Ægithina tiphia.

The Green Indian Flycatcher, *Edwards, Nat. Hist. Birds,* ii. p. 79, pl. 79.
Le Figuier de Bengal, *Briss. Orn.* iii. p. 484 (*ex Edwards*).
Motacilla tiphia, *Linn. Syst. Nat.* i. p. 331 (*ex Edwards*).
Ceylon Black-cap, *Brown, Ill. Zool.* pl. xv. fig. 2.
Le Figuier vert et jaune, *Buff. Hist. Nat. Ois.* v. p. 278.
Green-rumped Finch, *Lath. Gen. Syn.* ii. part 1, p. 320.
Ceylon Warbler, *Lath. op. cit.* ii. part 2, p. 474 (*ex Brown*).
Green Indian Warbler, *Lath. op. cit.* ii. part 2, p. 474 (*ex Edwards*).
Fringilla multicolor, *Gm. Syst. Nat.* i. p. 924 (*ex Lath.*).
Motacilla zeylonica, *Gm. tom. cit.* p. 964 (*ex Lath.*).
Le Quadricolor, *Levaill. Ois. d'Afr.* iii. p. 176, pl. 141, figs. 1, 2; *Sundev. Crit. om Levaill.* p. 40.
Sylvia leucoptera, *Vieill. Ois. d'Amér. sept.* ii. pl. 84.
Ægithina quadricolor, *Vieill. Nouv. Dict. d'Hist. Nat.* i. p. 176 (*ex Levaill.*).
Sylvia zeylonica, *Bonn. et Vieill. Enc. Méth.* ii. p. 481.

Iora scapularis (*nec Horsf.*), *Frankl. P. Z. S.* 1830, p. 118; *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pls. 102, 103; *id. in Gray's Zool. Misc.* p. 83, no. 711.

Iora typhia, *Sykes, P. Z. S.* 1832, p. 89; *Jerd. Madr. Journ.* x. p. 248; *Hartl. Mag. de Zool.* 1845, texte to pl. 60; *Blyth, J. A. S. Beng.* xiii. part 1, 1844, p. 380; *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 86; *id. Gen. B.* i. p. 199; *Blyth, Cat. B. Mus. As. Soc.* p. 214; *Bp. Consp.* i. p. 397; *Cab. Mus. Hein.* Th. i. p. 76; *Layard, Ann. Nat. Hist.* xii. 1853, p. 267; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 266; *Jerd. B. Ind.* ii. p. 103; *Blyth & Walden, B. Burm.* p. 137; *Armstrong, Str. F.* 1876, p. 326; *Hume, Str. F.* 1877, p. 428; *id. & Davison, Str. F.* 1878, p. 327; *id. Str. F.* 1879, pp. 63, 99; *Legge, Birds of Ceylon*, p. 490; *Anderson, Zool. Exp. Yun-nan*, p. 660.

Motacilla subviridis, *Tickell, J. A. S. Beng.* ii. p. 577.

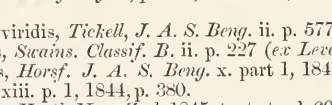
Iora melaceps, *Swains. Classif. B.* ii. p. 227 (*ex Levaill.*).

Iora meliceps, *Horsf. J. A. S. Beng.* x. part 1, 1841, p. 50; *Blyth, J. A. S. B.* xiii. p. 1, 1844, p. 380.

Iora zeylonica, *Hartl. Mag. Zool.* 1845, texte to pl. 60; *Gray, Gen. B.* i. p. 199; *Blyth, Cat. B. Mus. As. Soc.* p. 213; *Bp. Consp.* i. p. 397; *Cab. Mus. Hein.* Th. i. p. 76; *Layard, Ann. Nat. Hist.* 1853, xii. p. 267; *Horsf. & Moore, Cat. B. E.I. Co. Mus.* i. p. 267; *Jerd. B. Ind.* ii. p. 101; *Holdsw. P. Z. S.* 1872, p. 452; *Butler, Str. F.* 1875, p. 473; *Hume, Str. F.* 1879, p. 99.

Ægithina tiphia, *Gray, Hand-l. B.* i. p. 316, no. 4725; *Hume, Nests & Eggs Ind. B.* p. 295; *Ball, Str. F.* 1874, p. 411; *Hume, t. c.* p. 459; *id. Str. F.* 1875, p. 129.

Ægithina zeylonica, *Gray, Hand-l. B.* i. p. 316, no. 4726; *Hume, Str. F.* 1873, p. 438.



Wing of *Ægithina tiphia*, to show proportions of primaries and secondaries.

*Adult male* (Khandala, May 12, 1876; *S. B. Fairbank*). General colour above glossy black, the feathers of the mantle white at base, slightly washed with yellow; scapulars white, the outermost black at the tips; wing-coverts black like the back, with a double band of white across the wing, formed by the median coverts and the white tips to the majority of the greater coverts; quills black, with a very narrow edging of yellow to the primaries, the secondaries narrowly fringed with white at the tip, the innermost entirely glossy black; lower back and rump yellowish green; upper tail-coverts and tail-feathers black; lores, eyelid, sides of crown, and sides of neck glossy black, the latter mottled with white bases to the feathers; lower edge of eyelid, cheeks, ear-coverts, and under surface of body bright yellow, fading off into paler yellow on the lower abdomen and under tail-coverts, the sides washed with yellowish green; on either flank a large tuft of silky white plumes; thighs yellowish

green with black bases, giving a mottled appearance; under wing-coverts white, washed with yellow; axillaries white; quills ashy blackish below, white along the edge of the inner web. Total length 5·1 inches, culmen 0·6, wing 2·45, tail 1·85, tarsus 0·75. (*Mus. R. G. Wardlaw Ramsay.*)

*Adult female* (South Gorge, Khandala, April 5, 1876; *S. B. Fairbank*). General colour above yellowish green, rather more yellow on the head; feathers of the back long and silky, the bases grey; tail green, narrowly edged with yellowish; lesser wing-coverts dusky green; median wing-coverts dull white, forming a bar across the wing; greater coverts blackish, tipped with white, forming a second wing-bar; quills dusky blackish, narrowly edged with pale yellow, inclining to white near the end of the quills, the innermost secondaries more broadly edged with yellow; lores, feathers round the eye, sides of face, ear-coverts, and under surface of body bright yellow, the sides slightly washed with greenish; under wing-coverts white, tinged with yellow; axillaries white; quills ashy black below, white along the edge of the inner web. Total length 5·2 inches, culmen 0·6, wing 2·45, tail 2·05, tarsus 0·7. (*Mus. R. G. Wardlaw Ramsay.*)

*Adult male in green plumage* (twelve miles east of Ahmednuggur, Jan. 8, 1876; *S. B. Fairbank*). Similar to the old female, but distinguished at a glance by the black tail and much blacker wings; scapulars whiter; wing-bands very distinct and broad; quills black, narrowly edged with pale yellow, much broader on the secondaries, which are white at the tips, the innermost margined white or yellowish white on both outer and inner webs; tail-feathers black, narrowly edged with yellowish white, more evidently on the outer tail-feather, which is also somewhat more plainly tipped. Total length 5·3 inches, culmen 0·6, wing 2·6, tail 1·8, tarsus 0·75. (*Mus. R. G. Wardlaw Ramsay.*)

*Young male* (Khandala, April 17, 1876; *S. B. Fairbank*). Not to be distinguished from the old female. Total length 5·5 inches, culmen 0·6, wing 2·45, tail 2·05, tarsus 0·7. (*Mus. R. G. Wardlaw Ramsay.*)

The descriptions have been taken from a carefully collected series in Capt. Wardlaw Ramsay's cabinet, as they seemed to show the changes of plumage more completely than those in the British Museum, which have not the sexes or dates of capture sufficiently well indicated.

*Obs.* Captain Legge gives the soft parts in Ceylonese birds (true *Æ. zeylonica*) as follows:—

*Male.* Iris grey, mottled with brown, occasionally hazel-brown; bill, upper mandible black, with a clearly defined blue edge; lower mandible dusky blue, with a bluish margin; legs and feet slate-blue, claws black.

*Female.* Iris olive-grey; bill somewhat paler than in the male.

Burmese birds, according to Dr. Armstrong, had the "irides light greyish white; bill slaty blue, lighter at tip; legs and feet bluish grey."

The Indian Dwarf Bulbul, in its several races, is widely spread over the whole of the Indian peninsula and Ceylon, ranging throughout the Burmese countries to Siam, Cambodia, and Cochin China, and southwards into the Malayan peninsula. On the differences of the races which replace *Æ. tiphia* in the Sunda Islands and the Philippines, see above (p. 5). It appears to be a resident species throughout its range.

*α. Ægithina zeylonica* (true, or dark race).

| | | |
|---|---|---|
| *a.* ♂ imm.; *b.* ♀ ad. sk. | Newara Eliya, Ceylon. | Mr. E. Boate [C.]. |
| *c.* ♂ ad. sk. | Ceylon. | Purchased. |
| *d.* ♂ ad.; *e.* ♂ imm. sk. | Ceylon (*Nevill*). | Capt. R. G. Wardlaw Ramsay. |
| *f.* ♂ ad sk. | Travancore. | India Museum. |
| *g.* ♀ ad. sk. | Mysore. | India Museum. |
| *h.* ♂ ad. sk. | Madras. | Rev. H. H. Baber [P.]. |
| *i.* ♀ ad. sk. | Madras (*Jerdon*). | Gould Collection. |
| *k, l.* ♂ ad.; *m.* ♀ ad. st. | Madras. | Rev. H. H. Baber [P.]. |
| *n.* ♀ ad. sk. | Ceylon. | Gould Collection. |

*β. Æ. zeylonica* (pale race).

| | | |
|---|---|---|
| *a.* ♂ juv.; *b, c.* ♀ sk. | Deccan (*Sykes*). | India Museum. |
| *d, e.* ♂ ♀ ad. sk. | Kamptee, Central India. | Dr. B. Hinde [P.]. |
| *f.* ♂ juv.; *g.* ♀ ad. sk. | Khandeish. | India Museum. |
| *h.* ♂ ad. sk. | Khandeish. | Capt. R. G. Wardlaw Ramsay. |
| *i, k.* ♂ ad.; *l, m.* ♂ juv. sk. | Bengal. | Capt. Stackhouse Pinwill [P.]. |
| *n, o.* ♀ ad. sk. | Bengal. | Capt. Stackhouse Pinwill [P.]. |
| *p.* ♂ ad. sk. | Jubbulpur district. | Capt. R. G. Wardlaw Ramsay. |
| *q, r.* ♂ ad.; *s.* ♀ ad. sk. | Deccan (*Burgess*). | Gould Collection. |

*γ. Æ. tiphia.*

| | | |
|---|---|---|
| *a.* ♀ ad.; *b.* ♂ imm. sk. | Behar. | B. H. Hodgson, Esq. [P.]. |
| *c, d.* ♂ ♀ sk. | Near Calcutta (*As. Soc.*). | India Museum. |
| *e.* ♂ imm. sk. | Nepal (*Hodgson*). | India Museum. |
| *f.* ♂ imm.; *g.* ♀ ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *h.* ♂ juv.; *i.* ♀ ad. sk. | Sikkim (*Schlagintweit*). | India Museum. |
| *k.* Ad. sk. | Darjiling. | India Museum. |
| *l.* ♂ imm. sk. | Bootan. | Purchased. |
| *m, n.* ♂ ♀ imm. sk. | Assam. | India Museum. |
| *o.* ♀ ad. sk. | Khasia hills. | Capt. R. G. Wardlaw Ramsay. |
| *p, q.* ♂ imm.; *r.* ♀ ad. sk. | Tonghoo. | Capt. R. G. Wardlaw Ramsay. |

| | | |
|---|---|---|
| *s.* ♀ ad. sk. | Tonghoo, June 1, 1875 (*R. G. W. R.*). | Capt. R. G. Wardlaw Ramsay. |
| *t.* ♂ ad. sk. | Rangoon, June 1873 (*R. G. W. R.*). | Capt. R. G. Wardlaw Ramsay. |
| *u.* ♀ ad. sk. | Mandalay, Jan. 26, 1868. | Dr. J. Anderson [C.]. |
| *v.* ♀ ad. sk. | Bhamau, Sept. 8, 1868. | Dr. J. Anderson [C.]. |
| *w, x.* ♂; *y.* ♀ ad. sk. | Tenasserim. | J. C. D. Packman, Esq. [P.]. |
| *z.* ♂ ad.; *a', b'.* ♂ imm. sk. | Cochin China. | M. E. Pierre [P.] |
| *c', d'.* ♀ ad.; *e', f', g'.* ♂ juv. sk. | Cochin China. | M. E. Pierre [P.]. |
| *h'.* ♂ ad. sk. | Malacca. | |
| *i'.* ♂ ad.; *k', l'.* ♂ imm. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *m', n'.* ♂ imm.; *o'.* ♀ ad. sk. | Malacca. | India Museum. |
| *p', q'.* ♂; *r', s', t'.* ♀ ad. sk. | Penang (*Cantor*). | India Museum. |
| *u'.* ♀ ad. sk. | Lucknow, Feb. 15, 1879. | Lieut.-Col. Way [P.]. |
| *v', w'.* ♀ ad. sk. | Nepal (*Hodgson*). | India Museum. |
| *x'.* ♀ ad. st. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *y', z'.* Ad. sk. | Nepal (*Hodgson*). | Gould Collection. |

### Subsp. *a.* Ægithina viridis.

Turdus scapularis, *Raffles, Trans. Linn. Soc.* xiii. p. 311 (*nec Horsf.*).
Iora viridis, *Bp. Consp.* i. p. 397 (*ex Temm. MSS. in Mus. Lugd.**).
Iora scapularis (*nec Horsf.*), *Blyth, J. A. S. Beng.* xiii. pt. 1, p. 381; *id. Cat. B. Mus. As. Soc.* p. 214; *id. Ibis*, 1867, p. 10; *Salvad. Ucc. Born.* p. 190; *Sharpe, Ibis*, 1877, p. 14; *id. Trans. Linn. Soc. new series, Zool.* i. p. 333; *id. P. Z. S.* 1879, p. 339.
Ægithina viridis, *Tweedd. Ibis*, 1877, p. 304; *id. P. Z. S.* 1878, p. 619.
Ægithina scapularis, *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 216.

*Adult male.* Similar to the adult black-winged form of *Æ. tiphia*, but never putting on the black head or mantle; forehead yellow; lores golden yellow; "bill and legs pale leaden or dark leaden grey; iris white" (*A. Everett*); "eyes black or grey" (*J. B. Steere*). Total length 5·2 inches, culmen 0·7, wing 2·65, tail 2, tarsus 0·8.

*Adult female.* Not to be distinguished from the female of *Æ. tiphia*. Total length 5 inches, culmen 0·7, wing 2·4, tail 2·1, tarsus 0·75.

The Black-winged Dwarf Bulbul appears to be confined to Sumatra, Borneo, and Palawan, being resident in all these islands.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *b, c.* [♀ ad.] sk. | Borneo. | |
| *d.* ♂ juv. sk. | Sarawak. | A. R. Wallace, Esq. [C.]. |
| *e.* ♀ ad. sk. | Kuching, Sarawak. | Alfred Everett, Esq [C.]. |

* Type in Leyden Museum examined.

| | | |
|---|---|---|
| *f.* ♂ juv. sk. | Santubong Bay. | Alfred Everett, Esq. [C.]. |
| *g.* ♂ ad. sk. | Jambusan. | Alfred Everett, Esq. [C.]. |
| *h, i.* ♂ ad.; *k.* ♀ ad. sk. | Labuan. | Hugh Low, Esq. [C.]. |
| *l, m.* ♂, *n, o.* ♀ ad. sk. | Labuan (*H. Low*). | R. B. Sharpe, Esq. [P.]. |
| *p.* ♂ ad. sk. | Puerto Princesa, Palawan. | Prof. J. B. Steere [C.]. |

### Subsp. β. Ægithina scapularis.

Iora scapularis, *Horsf. Trans. Linn. Soc.* xiii. p. 152; *id. Zool. Research. in Java*, pl. 45; *Hartl. Mag. de Zool.* 1845, *Ois.* texte to pl. 60; *Gray, Gen. B.* i. p. 199; *Bp. Consp.* i. p. 396; *Cab. Mus. Hein.* Th. i. p. 76; *Horsf. & Moore, Cat. B. E.I. Co. Mus.* i. p. 265 (pt.); *Bernst. J. f. O.* 1859, p. 277; *Jerd. B. Ind.* ii. p. 104.
Ægithina scapularis, *Gray, Hand-l. B.* i. p. 316, no. 4727; *Nichols. Ibis*, 1879, p. 167, 1881, p. 148.

*Adult male.* Differs from *Æ. tiphia* in never having the head or back black, and the tail always being greenish, like the female of *Æ. tiphia*. Total length 5 inches, culmen 0·65, wing 2·5, tail 1·9, tarsus 0·75.

*Adult female.* Similar to the male, but the wing not so black. Total length 5·3 inches, culmen 0·65, wing 2·4, tail 2, tarsus 0·75.

The Javan Dwarf Bulbul appears to be confined to the island of Java, where it is not an uncommon species.

| | | |
|---|---|---|
| *a.* Ad. sk. | Java (*Horsfield*). | India Museum. (Type of species.) |
| *b, c, d.* Ad. sk. | Java (*Horsfield*). | India Museum. |
| *e.* ♀ ad. sk. | East Java. | A. R. Wallace, Esq. [C.]. |
| *f–o.* Ad. sk. | West Java (*E. C. Buxton*). | F. Nicholson, Esq. [P.]. |
| *p, q.* ♂ ♀ ad. sk. | Java (*Leyden Museum*). | F. Godman and O. Salvin, Esqrs. [P.]. |

### 3. Ægithina nigrolutea.

Iora nigrolutea, *G. F. L. Marshall, Str. F.* 1876, p. 410; *Hume, Str. F.* 1877, pp. 134, 441, vii. 1878, p. 454, 1879, p. 99.

*Adult male.* In breeding-plumage the male has the forehead, crown, occiput, and nape glossy black, the black terminating in a well-defined curved line; the chin, throat, cheeks, ear-coverts, breast, sides of neck, and a broad half-collar occupying the base of the back of the neck and the upper back intense gamboge-yellow, exactly the colour of the breast in Ceylon *Æ. tiphia* (♂) in breeding-plumage. Rarely this collar is entirely uniform; generally a few of the central feathers are narrowly fringed at the tips with black, occasionally most of the feathers are so fringed. Mid back glossy black, rarely unbroken, generally with a little of the yellow (or, towards the rump, greenish) bases of the feathers showing through, in one specimen with a good deal of this; rump pale greenish, the white bases to the feathers often showing through a good deal; upper tail-coverts and tail black, the former with a bluish gloss, the latter with all the feathers broadly tipped with white, the white not unfrequently running some distance up the margin of the inner, and in a few cases of the outer webs also. Coverts and tertiaries

black, both median and greater coverts broadly tipped with white; in many specimens the tertiaries and the latest secondaries are broadly margined at the tips with white, but in some this is less conspicuous, and in some towards the close of the breeding-season it is almost entirely wanting on the tertiaries; the primaries and secondaries hair-brown, more or less of the outer webs towards their bases blackish, and margined on their outer webs very narrowly (in some more, in some less) conspicuously with white. The abdomen is like the breast, but paler; in some with a greenish tinge towards the sides and on its lower half, and in other cases looking (in skins) nearly white, owing to the intermixture of the long silky white feathers of the flank-tufts; wing-lining and axillaries, and more or less of the inner margins of the quills, satiny white; a slight primrose tinge at the bend of the wing. (*Hume, Str. Feath.* 1877, p. 443.)

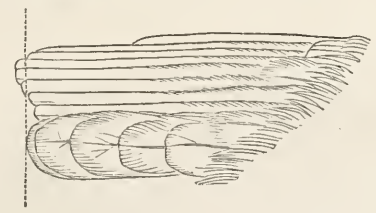
*Female.* The females and males in non-breeding plumage have the entire underparts a pale mealy yellow, slightly shaded with olive-green; the head is similar, but not quite so light; the nape and entire back similar, but much more strongly overlaid with olive-green. The wings and tail are as in the breeding-season, except that the wings have the margins, especially of the tertiaries, very conspicuous and much tinged with pale yellow, that the greater coverts often have pale yellow margins besides the white tips, and that the central tail-feathers are almost entirely greyish white, tipped pure white, and with the outer webs in many specimens more or less shaded with ashy, or occasionally olivaceous ashy. (*Hume, l. c.*)

The range of Marshall's Dwarf Bulbul is given by Mr. Hume as follows—Western India (Kutch, Deesa, Anadra at the foot of Mount Aboo, Sambhur, Koochawun, Agra, Muttra, Delhi, Etawah, Jhansi, Sambulpoor, Allygur, Meerut, Saharunpoor).

## 2. AETHORHYNCHUS.

Type.

Aethorhynchus, *Sundevall, Av. Meth. Tent.* p. 8 (1872). A. lafresnayii.
Phœnicomanes, *Sharpe, P. Z. S.* 1874, p. 427 ..... A. lafresnayii.



Wing of *Aethorhynchus xanthotis*, to show proportions of primaries and secondaries.

Similar in form and colour to *Ægithina*, but with the bill longer, about equal to the head in length; third quill equal to the secondaries.

*Range.* From the Burmese countries into the Malayan peninsula.

*Key to the Species.*

*a*. Tail yellowish green.
  *a'*. Larger: green; no bright yellow edges to the wing-coverts; ear-coverts green, with yellow shaft-streaks ..... *lafresnayii* ♀, p. 14.
  *b'*. Smaller: yellowish green; wing-coverts conspicuously margined and tipped with yellow; ear-coverts bright yellow .... *xanthotis* ♀, p. 15.
*b*. Tail black; ear-coverts black ..... *lafresnayii* ♂, p. 14.

### 1. Aethorhynchus lafresnayii.

Iora lafresnayei, *Hartl. Rev. Zool.* 1844, p. 401; *id. Mag. de Zool.* 1845, *Ois.* pl. 60; *Gray, Gen. B.* i. p. 199; *Stoliczka, J. A. S. Beng.* xxxix. 1870, p. 309; *Blyth & Wald. B. Burm.* p. 137; *Hume, Str. F.* 1877, p. 423, 1878, p. 516, 1879, pp. 63, 99.
Iora innotata, *Blyth, J. A. S. Beng.* xvi. p. 472; *id. Cat. B. Mus. As. Soc. B.* p. 213; *Bp. Consp.* i. p. 397.
Ægithina lafresnayei, *Gray, Hand-l. B.* i. p. 316, no. 4729.
Aethorhynchus lafresnayei, *Sund. Av. Meth. Tent.* p. 8.
Phœnicomanes iora, *Sharpe, P. Z. S.* 1874, p. 427, pl. 54; *id. Ann. & Mag. Nat. Hist.* 1875, xvi. p. 236; *Finsch, P. Z. S.* 1875, p. 640.

*Adult male*. General colour above glossy greenish black, with slight remains of greyish green, especially on the lower back and rump; wing-coverts and quills black, externally edged with greenish black, the primaries with an outer margin of yellowish white, nearly obsolete; upper tail-coverts and tail greenish black; some of the tail-feathers with a very narrow margin of yellow on the inner web; forehead washed with greenish yellow; lores, feathers round the eye, and cheeks bright yellow; ear-coverts glossy greenish black, including the hinder margin of the eyelid; sides of neck and under surface of body bright yellow; flanks with a large tuft of silky white feathers; under wing-coverts and axillaries white, the former slightly washed with yellow. Total length 5·8 inches, culmen 0·9, wing 2·75, tail 2·2, tarsus 0·7. (*Mus. R. G. Wardlaw Ramsay.*)

*Adult female* (Ahsown, Tenasserim, 2000 feet, Feb. 5, 1877). General colour above dull grass-green, with a gloss of oily green, the feathers grey at the base; least wing-coverts like the back; median and greater coverts and quills dusky black, washed with green and inclining to pale yellow on the edges, shading into greyish white towards the tips of the outer webs of the primaries; tail-feathers yellowish green, edged with brighter yellow along the inner webs; lores, feathers round the eye, and cheeks bright yellow; ear-coverts green, streaked with yellow; under surface of body bright yellow, the sides of the body greener; flanks with a concealed tuft of white plumes; under wing-coverts and axillaries white, the former washed with yellow; edge of wing yellow; quills dusky blackish below, white along the edge of the inner web; "bill dark above, bluish grey underneath; legs bluish grey; iris brown" (*MS. label*). Total length 6 inches, culmen 0·9, wing 2·8, tail 2·2, tarsus 0·8. (*Mus. R. G. Wardlaw Ramsay.*)

*Obs.* Mr. Hume gives the following note:—"In the November birds the legs, feet, and claws were dull smalt-blue, and so were the lower mandible, gape, and edges of the upper mandible, the rest of the latter being blackish brown. In the June and July specimens the legs and feet were clear lavender-blue; the lower mandible and a broad line on each side of the upper mandible pale blue, the rest of the latter black (cf. *Hume, Str. F.* 1877, p. 425).

Lafresnaye's Dwarf Bulbul is found from Arracan, through Tenasserim, into the Malayan peninsula.

*a*. Vix ad. sk. Malacca. Purchased.
(Type of *Phœnicomanes iora.*)

### 2. Aethorhynchus xanthotis.

*Adult* [*female*?]. General colour above yellowish green, the feathers greyish at the base, the head and neck a little more yellowish green than the back; least wing-coverts like the back; rest of the coverts dusky greenish, conspicuously edged with yellow; quills dusky blackish, externally margined with yellow, inclining to greyish white on the outer webs of the primaries towards the tips; tail-feathers yellowish green, edged with yellow along the inner webs; forehead washed with yellow; lores, feathers round the eye, and sides of face bright yellow, the latter slightly washed with yellowish green; rest of under surface of body brilliant yellow, the sides of the body slightly washed with green; flanks with a large tuft of white feathers; under wing-coverts and axillaries white, the former washed with yellow; edge of the wing bright yellow. Total length 5·7 inches, culmen 0·85, wing 2·7, tail 2·05, tarsus 0·8.

*Male.* At present unknown.

Mouhot's Dwarf Bulbul probably represents the preceding species in Siam and Cambodia.

*a*. [♀?] ad. sk. Cambodia. M. Mouhot [C.].

### 3. CHLOROPSIS.

| | Type. |
|---|---|
| Chloropsis *Jard. & Selby, Ill. Orn.* text to plate v. (1826)* | ? C. jerdoni. |
| Phyllornis, *Temm. Pl. Col.* livr. 81 (1829, *ex Boie, MS.* †) | C. nigricollis. |

* The date of publication of this plate is given by the authors themselves as the year 1826 (see text to pl. C). The type is said to be the *Turdus cochinchinensis* of Latham, which is given as an inhabitant of "India" and "Cochin China." The description seems to imply that an Indian specimen of *C. jerdoni* was before the authors.

† Although nearly every one has quoted *Phyllornis* as a genus of Boie's, I have not found any one giving the exact reference to the work in which it was described; and although the 'Isis' is mentioned as the work to be consulted, I have carefully gone through the papers of the above-named ornithologist without discovering the description of the genus *Phyllornis*, nor can I find that the name was even mentioned by him. Until this can be found out, I am compelled to believe that it was a MS. name adopted by Temminck in 1829, in which case it becomes a synonym of *Chloropsis*.

*Range.* Indian peninsula and Ceylon, throughout the whole of the Burmese countries, into Cochin China and the Chinese island of Hainan, southwards through the Malayan peninsula and the islands of Sumatra, Java, and Borneo to the Philippines.

*Key to the Species.*

*Males.*

*a.* Belly orange like the breast.
  *a'.* Golden green on the head and neck, this colour extending over the back; shoulder-spot silvery cobalt ..... *hardwickii*, p. 18.
  *b'.* Head dull bluish green, contrasting with the neck; shoulder-spot deep cobalt ..... *lazulina*, p. 19.
*b.* Belly green.
  *c'.* Forehead bright orange-red.
    *a''.* A ring of orange across the fore neck; throat deep blue ..... *aurifrons*, p. 20.
    *b''.* No orange on fore neck, which is green like breast; throat black ..... *malabarica*, p. 22.
  *d'.* Forehead yellow, green, or purplish blue.
    *c''.* Throat entirely black.
      *a'''.* A conspicuous shoulder-patch of bright blue or green, formed by lesser coverts.
        $a^4$. Quills externally green, the primaries edged with green or yellow, but not with blue; tail green, not bluish green.
          $a^5$. No yellow on forehead or sides of neck, these parts being only a little clearer green than the back.
            $a^6$. Shoulder-spot turquoise-blue .. *viridis*, p. 23.
            $b^6$. Shoulder-spot malachite-green.. *zosterops*, p. 24.
          $b^5$. Forehead yellow, as also eyebrow, and a collar running from below the eye down the neck to the præpectoral collar, also yellow.
            $c^6$. Forehead dull yellow, extending down the sides of the head onto the sides of the lower neck, as to skirt the black throat; so on small wing-coverts a patch of greenish blue; black on throat narrow, and not extending onto the sides of the neck ..... *jerdoni*, p. 25.
            $d^6$. Forehead bright yellow, forming a cap; shoulder-patch on lesser wing-coverts cobalt-blue; black on throat very broad and widening onto the sides of the neck . *media*, p. 27.
        $b^4$. Quills externally blue; tail bluish; primaries externally blue.
          $c^5$. Forehead green, only slightly yellow at the base and over the eye.
            $e^6$. Head green, without any golden shade; sides of neck also green; shoulder-spot turquoise-blue .. *nigricollis*, p. 27.

$f^6$. Hinder crown and hind neck, as well as sides of latter, washed with golden; shoulder-spot rich cobalt ..... *chlorocephala*, p. 28.
$d^5$. Forehead bright yellow.
$g^6$. Nape and hind neck golden.... *icterocephala*, p. 30.
$h^6$. Nape and hind neck green .... *viridinucha*, p. 31.
$b'''$. No shoulder-patch of bright blue or green..... *cyanopogon*, p. 32.
$d''$. Throat yellow.
$c'''$. A moustachial streak of turquoise-green and lilac-white; throat brilliant yellow; lores and eyelid turquoise-green; primaries externally blue .... *palawanensis*, p. 33.
$d'''$. No moustachial streak; throat pale yellow, shading off into the green breast; lores and eyelid light emerald-green; primaries externally edged with yellow ..... *flavipennis*, p. 34.
$e''$. Chin purplish blue, like the forehead and sides of face; lower throat only blackish *venusta*, p. 34.

*Females.*

*a*. Centre of breast and belly orange..... *hardwickii*, p. 18.
*b*. Belly green.
$a'$. Throat and fore neck black.
$a''$. Upper throat blue, like the moustachial streaks ..... *aurifrons*, p. 20.
$b''$. Upper throat black; moustachial streaks blue ..... *malabarica*, p. 22.
$b'$. Throat green, or blue, or yellow.
$c''$. Throat yellow.
$a'''$. Wings externally blue; throat bright yellow; eye-ring purple; lores pale turquoise ..... *palawanensis*, p. 33.
$b'''$. Wings green, the primaries edged with yellow.
$a^4$. Eyelid pale yellowish; quill-lining yellow; no moustachial streak .... *flavipennis*, p. 34.
$b^4$. Eyelid bright yellow, as also a spot at base of lower mandible: quill-lining ashy; a blue moustachial streak .. *viridis*, p. 23. / *zosterops*, p. 24.
$d''$. Throat blue or green.
$c'''$. No blue shoulder-spot; throat yellowish green, like rest of under surface *cyanopogon*, p. 32.
$d'''$. A shoulder-spot of bright blue.
$c^4$. Wings externally green.
$a^5$. Throat blue ..... *jerdoni*, p. 25.
$b^5$. Throat yellowish green..... *media*, p. 27.
$d^4$. Wings externally blue.
$c^5$. Throat green, like the rest of the under surface.
$a^6$. Head green, like the back .... *viridinucha*, p. 31.
$b^6$. Head and neck washed with golden ..... *icterocephala*, p. 30.
$d^5$. Breast yellow, contrasting with the emerald-green throat ..... *nigricollis*, p. 28. / *chlorocephala*, p. 28.



2

### 1. Chloropsis hardwickii.

Chloropsis hardwickii, *Jard. & Selby, Ill. Orn.* ii. *App.* p. 1; *Blyth, J. A. S. Beng.* xi. p. 106; *Jerd. Madr. Journ.* xiii. p. 125.
Chloropsis curvirostris, *Swains. An. in Menag.* p. 345; *Deless. Voy. dans l'Inde*, ii. p. 23, pl. 7; *Blyth, J. A. S. Beng.* xii. p. 955.
Chloropsis chrysogaster, *M'Clell. P. Z. S.* 1839, p. 167.
Chloropsis auriventris, *Deless. Rev. Zool.* 1840, p. 100; *id. Mag. de Zool.* 1840, pl. 17.
Phyllornis auriventris, *Less. Rev. Zool.* 1840, p. 165.
Chloropsis cyanopterus, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pls. 39 & 40, nos. 250, 251, 252; *id. in Gray's Zool. Misc.* p. 82.
Phyllornis hardwickii, *Blyth, J. A. S. Beng.* xiii. p. 392, xiv. p. 566, xv. p. 49; *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* 1846, p. 60; *id. Gen. B.* i. p. 124; *Blyth, Cat. B. Mus. As. Soc.* p. 212; *Cab. Mus. Hein.* Th. i. p. 114; *Bp. Consp.* i. p. 396; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 258; *Gould, B. Asia*, pt. xiii.; *Jerd. B. Ind.* ii. p. 100; *Gray, Hand-l. B.* i. p. 277, no. 4075; *Godw.-Aust. J. A. S. Beng.* xxxix. p. 106 (1870); *Blyth & Wald. B. Burm.* p. 137; *Hume, Str. F.* 1878, p. 327, 1879, p. 99; *Scully, t. c.* p. 297.

*Adult male.* General colour above bright green, yellower on the head, and washed with yellow on the mantle and back; least wing-coverts bright greenish cobalt, forming a shoulder-patch; remainder of wing-coverts purplish blue; quills blackish, rather brighter purple along the outer webs, the inner greater coverts and the inner secondaries externally green, the innermost being entirely green like the back; tail-feathers dark purple, blackish on the inner web; lores, ear-coverts, and entire throat and fore neck black, the two latter glossed with purple; the forehead, eyebrow, and hinder margin of ear-coverts more distinctly ochraceous yellow; cheeks deep cobalt, forming a distinct moustache; remainder of under surface of body rich ochraceous orange, with a slight wash of green on the flanks; under wing-coverts ashy, slightly washed with blue, the edge of the wing deep blue; axillaries pale yellowish rufous, slightly washed with green on the edges; quills ashy below, lighter along the edge of the inner web; "bill black; legs plumbeous; iris light brown" (*Jerdon*); "iris brown or dark brown" (*Scully*). Total length 7·5 inches, culmen 0·9, wing 3·8, tail 3·1, tarsus 0·7.

*Adult female.* Green above like the male, but without any of the yellow wash on the head and back; wing-coverts and outer aspect of quills green, with a little blue on the bastard wing- and primary-coverts; least wing-coverts glossy cobalt, but not so bright as in the male; centre tail-feathers green, the outer ones bluish green, more blue on the inner webs; a faint indication of a lighter green eyebrow; cheeks cobalt-blue, not so bright as in the male; under surface of body light green, with a wash of blue on the chin and throat, the centre of the body ochraceous orange, not so bright as in the male; no black on head or throat; under wing-coverts ashy, tinged with bluish green, the edge of the wing blue; axillaries very pale green; quills ashy below, paler along the edge of the inner web. Total length 7·3 inches, culmen 0·9, wing 3·55, tail 2·8, tarsus 0·75.

Young birds appear to resemble the old females, but to be still greener, the orange colour on the breast being confined to a pale shade down the centre of the body and on the under tail-coverts.

The approach to maturity seems very gradual, and it is probable that both sexes are alike in the earlier stages. Black-throated specimens are in the Museum collection, which still retain the green wings of the female dress.

The Orange-bellied Green Bulbul is plentiful in the Himalayas from 2000 to 4000 feet, and is found also in the hills of Assam, Aracan, Burmah, and Tenasserim.

| | | |
|---|---|---|
| *a,b.* ♂, *c.* ♀ ad. sk. | Nynee Tal. | Capt. Stackhouse Pinwill [P.]. |
| *d–f.* ♂, *g, h.* ♀ ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. (Types of *C. cyanopterus.*) |
| *i.* ♂ ad.; *k.* Juv. sk. | Nepal (*B. H. Hodgson*). | India Museum. |
| *l.* ♂ ad.; *m.* ♂ imm. sk. | Darjiling (*Eccles*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *n.* ♂ ad.; *o.* ♀ jun. sk. | Bootan (*Pemberton*). | India Museum. |
| *p.* ♂ ad. sk. | Assam (*McClelland*). | India Museum. (Type of *C. chrysogaster.*) |
| *q.* ♂ ad. sk. | Jirang, Khasia hills, Dec. 21, 1876 (*A. W. Chennell*). | Lieut. R. G. Wardlaw Ramsay. |
| *r.* ♂ ad. sk. | Karen hills, Jan. 16, 1875 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |

## 2. Chloropsis lazulina.

Phyllornis lazulina, *Swinh. Ibis*, 1870, p. 255; *id. P. Z. S.* 1871, p. 370; *David & Oustalet, Ois. Chine*, p. 134.

*Adult male* (Hainan, March 1868, R. Swinhoe: type of species). General colour above bright grass-green, with a shade of golden green on the hinder neck and sides of the latter; the crown washed with dull bluish green or greenish verditer, brighter over the eyes, forming a superciliary line, the same colour occupying the upper margin of the eyelid; lores, remainder of eyelid, and sides of face blue-black, brighter blue below the eye; cheeks bright cobalt, forming a broad moustachial band; throat and fore neck deep blue; sides of the latter, breast, and centre of body, as well as the thighs and under tail-coverts, rich orange-yellow; the sides of the body and flanks emerald-green; axillaries light orange, washed with green; under wing-coverts ashy, washed with pale green; edge of wing and small outer coverts cobalt-blue; quills ashy brown below, lighter ash-colour along the inner webs; scapulars like the back; least series of upper wing-coverts bright cobalt, forming a shoulder-patch; median and outer greater coverts, as well as the bastard wing- and primary-coverts, deep blue; the central greater wing-coverts blue externally, green on the inner web, this colour gradually increasing, so that the inner greater coverts are entirely green like the secondary quills; primaries blackish, externally deep blue, the secondaries

green on the outer webs, the innermost entirely green; tail-feathers deep blue, more or less green towards the base of the inner web; "bill deep brownish black; legs and toes leaden grey; iris deep brown" (*R. Swinhoe*). Total length 6·5 inches, culmen 0·9, wing 3·75, tail 3·1, tarsus 0·75. (*Mus. Henry Seebohm.*)

*Adult female.* Differs from the male in having no orange on the under surface, and the blue-black throat is also absent. General colour green, inclining to pale bluish green on the head; the under surface more emerald-green on the centre of the body; wing-coverts washed with blue, as also the outer edges of the primaries; chin and sides of face with a slight tinge of blue; cheek-feathers tipped with cobalt, forming a moustache. Total length 6·5 inches, culmen 0·8, wing 3·35, tail 2·8, tarsus 0·7. (*Mus. Henry Seebohm.*)

The Hainan Green Bulbul is, as far as we yet know, only met with in the Chinese island of Hainan.

### 3. Chloropsis aurifrons.

Phyllornis aurifrons, *Temm. Pl. Col.* 484, fig. 1; *Lesson, Rev. Zool.* 1840, p. 105; *Gray, Gen. B.* i. p. 124; *id. Cat. Mamm. &c. Nepal pres. Hodgs.* p. 61; *Blyth, Cat. B. Mus. As. Soc.* p. 212; *Bp. Consp.* i. p. 396; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 258; *Jerd. B. Ind.* ii. p. 99; *Gray, Hand-l. B.* i. p. 277, no. 4078; *Godwin-Austen, J. A. S. B.* xxxix. 1870, p. 106; *Ball, Str. F.* 1874, p. 411; *Hume, t. c.* p. 477; *id. Str. F.* 1875, p. 129; *Ball, Str. F.* 1877, p. 417, 1878, pt. 2, p. 215; *Anders. Zool. Exp. Yun-nan*, p. 661; *Hume, Str. F.* 1878, vol. vi. p. 326, 1879, vol. viii. p. 99; *Scully, t. c.* p. 297.

Chloropsis malabaricus (*nec Gm.*), *Jardine & Selby, Ill. Orn.* pl. v., and text to pl. C.

Chloropsis aurifrons, *Jardine & Selby, Ill. Orn.* text to pl. C; *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pls. 40, 41; *id. in Gray's Zool. Misc.* p. 82; *Blyth, J. A. S. Beng.* xi. p. 458, xii. p. 956; *Jerd. Madr. Journ.* xiii. p. 123.

Phyllornis hodgsoni, *Gould, B. Asia*, part xiii. (*ex Gray, MS.*); *Gray, Hand-l. B.* i. p. 277, no. 4073; *Blanf. J. A. S. Beng.* xxxii. p. 73; *Blyth & Walden, B. Burm.* p. 137.

*Adult.* General colour above bright grass-green; wings deeper green, with a bright patch of cobalt-blue formed by the lesser coverts; quills blackish, externally green, shading off into yellowish along the outer web of the primaries towards the tip; tail-feathers dark green, dusky along their inner webs; fore part of crown brilliant deep orange; lores, eyelid, sides of face, and throat black, fringed by a superciliary line of yellow, which embraces the hinder ear-coverts and skirts the black down the sides of the neck, thus forming a collar across the fore neck; cheeks and throat deep purplish cobalt, not extending onto the lower throat; remainder of under surface of body bright green, a little lighter in the centre of the body; axillaries green; under wing-coverts pale ashy, edged with green, the edge of the wing blue; quills ashy below, lighter along the inner webs; "bill black; legs bluish plumbeous;

iris dark brown" (*Wardlaw Ramsay*); "bill black; inside of mouth bluish grey; eyelids dark brown; legs and feet plumbeous; claws horny" (*Oates*); "legs and feet greenish plumbeous; bill black; irides deep brown or hazel-brown" (*Davison*). Total length 7·5 inches, culmen 0·9, wing 3·85, tail 2·8, tarsus 0·75.

*Adult female.* Similar in colouring to the male, the orange gorget slightly less vivid; as, however, some specimens marked "male" also have a pale gorget, it may be that the richness of colour of the latter depends upon age, and not upon sex.

The following are the dimensions of a pair of birds in Lieut. Wardlaw Ramsay's collection:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. ♂ ad. Rangoon, July 7, 1873 (*R. G. W. R.*). | 6·5 | 0·85 | 3·45 | 2·6 | 0·7 |
| *b*. ♀ ad. Rangoon, Dec. 5, 1873 (*R. G. W. R.*). | 6·5 | 0·8 | 3·35 | 2·4 | 0·7 |

These specimens are considerably smaller than the Nepalese bird described in full above, but I can see no difference in plumage. Mr. Hume (Str. F. 1878, vol. i. p. 326) also calls attention to the smaller size of Tenasserim birds as compared with Himalayan examples, which latter he also states are brighter coloured.

The Gold-fronted Green Bulbul is found in the sub-Himalayan region from Dehra Doon to Sikhim, extending into Lower Bengal. It also occurs through Aracan, Assam, and Burmah, to Tenasserim and Cambodia (*Harmand*; *Mus. Paris*), while the original specimens were described from Pallemberg in Sumatra. The types, however, in the Leiden Museum are now marked "India," showing that the authorities of that institution must have become convinced that some mistake had taken place with regard to the locality of the specimens in question, which are precisely like Indian ones. The occurrence of the species in Sumatra is very doubtful.

| | | |
|---|---|---|
| *a*. ♂ ad. sk. | N.W. Himalayas. | Capt. Stackhouse Pinwill [P.]. |
| *b*. Ad. sk. | Moalmaza. | |
| *c–f*. ♂ ad. et juv. sk. | Nepal. | B. H. Hodgson, Esq. |
| *g*. Ad., *h*. Juv. sk. | Nepal (*Hodgson*). | India Museum. |
| *i*. ♂ ad. sk. | Dacca (*Tytler*). | India Museum. |
| *k*, *l*. ♂ ad. sk. | Nazeerah, Upper Assam (*Dr. Reid*). | R. B. Sharpe, Esq. [P.]. |
| *m*. ♂ ad.; *n*. ♂ juv. sk. | Khasia hills (*Griffith*). | India Museum. |
| *o*. ♂ ad. sk. | Bhamau, Upper Burmah, Sept. 13, 1868. | Dr. J. Anderson [C.]. |
| *p*. ♂ ad. sk. | Tonghoo. | Lieut. R. G. Wardlaw Ramsay. |
| *q*. ♂ ad. sk. | Rangoon, Nov. 29, 1873 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |
| *r*. ♂ ad. sk. | Upper Burmah. | W. T. Blanford, Esq. [P.]. |

### 4. Chloropsis malabarica.

Le Petit Merle de la côte de Malabar, *Sonn. Voy. Indes Orient.* ii. p. 192.
Yellow-fronted Thrush, *Lath. Gen. Syn.* ii. p. 68 (*ex Sonn.*).
Turdus malabaricus, *Gm. S. N.* i. p. 837 (*ex Lath.*).
Chloropsis aurifrons (*nec Temm.*), *Sykes, P. Z. S.* 1832, p. 98; *Jerd. Madr. Journ.* x. p. 247.
Chloropsis cæsmarhynchus, *Blyth, J. A. S. Beng.* xii. p. 956 (1843).
Chloropsis malabaricus, *Jerd. Madr. Journ.* xiii. p. 124.
Phyllornis malabaricus, *Blyth, J. A. S. Beng.* xiv. p. 566 (1845); *Gray, Gen. B.* i. p. 124; *Blyth, Cat. Birds Mus. As. Soc.* p. 212; *Bp. Consp.* i. p. 396; *Layard, Ann. Nat. Hist.* xii. p. 176 (1853); *Gould, B. Asia,* part xiii.; *Jerd. B. Ind.* ii. p. 99; *Gray, Hand-l. B.* i. p. 277, no. 4079; *Holdsw. P. Z. S.* 1872, p. 451; *Legge, Ibis,* 1874, p. 21; *Fairbank, Str. F.* 1876, p. 258; *Bourd. t. c.* p. 400; *Hume, Str. F.* 1879, vol. viii. p. 99; *Legge, Birds of Ceylon,* p. 488.

*Adult.* General colour above bright green; wing-coverts like the back, the least series bright greenish cobalt, forming a shoulder-patch; quills blackish, externally green, edged with brighter green, inclining to yellow on the outer webs of the primaries; tail-feathers dull green, blackish on the inner webs; forehead bright orange; lores black, as also a ring of feathers round the eye; feathers below the latter and the underpart of cheeks, as well as the entire thorax and fore neck, black; ear-coverts and sides of neck green; a broad moustachial streak of deep cobalt, extending beyond the line of the eye; remainder of under surface of body light green, rather more yellow on the borders of the black throat; thighs lighter green; under wing-coverts light ashy, edged with green, the edge of the wing blue; quills ashy below, much paler along the edge of the inner web: "bill blackish; legs and feet slaty bluish; iris brown" (*Vincent Legge*). Total length 7·5 inches, culmen 0·9, wing 3·65, tail 2·7, tarsus 0·8.

*Adult female.* Somewhat smaller than the male. Bill not so black as in the male: forehead green; throat-patch and cheek-stripe smaller. Length 7·1 inches, wing 3·4, tail 2·8. (*V. Legge.*)

*Young.* The male of the year appears to have the forehead and throat green, as specimens are often procured with golden and black feathers mixed with the green respectively on these two parts; the maxillary stripe in these is small. (*V. Legge.*)

On comparing the series of adult males in Lieut. Wardlaw Ramsay's collection, a perceptible difference is observed in the birds from Candeish and from Khandala (*Fairbank*), which have a fringe of yellow skirting the black throat the entire way round on each side to behind the ear-coverts. None of the skins from Malabar or Ceylon show this yellow collar at all; and it is quite possible that there are two distinct species.

The Malabar Green Bulbul inhabits the forests of Malabar and Southern India, occurring also on the Eastern Ghats and in the forests of Central India. It is likewise found throughout the northern half of the island of Ceylon.

| | | |
|---|---|---|
| . ♂ ad. sk. | Ceylon. | Capt. Vincent Legge, R.A. [P.]. |
| *b.* Ad. sk. | Ceylon. | E. L. Layard, Esq. [C.]. |
| *c.* Ad. sk. | Nuwara Elliya. | Mr. E. Boate [C.]. |
| *d.* ♂ ad. sk. | Mynall, Travancore, Dec. 20, 1878. | F. W. Bourdillon, Esq. [C.]. |
| *e.* ♂ juv. sk. | Mynall, Dec. 17, 1878. | F. W. Bourdillon, Esq. [C.]. |

### 5. Chloropsis viridis.

Turdus viridis, *Horsf. Trans. Linn. Soc.* xiii. p. 148 (*juv.*).
Meliphaga javensis, *Horsf. Trans. Linn. Soc.* xiii. p. 152 (*descr. nullâ*).
Chloropsis sonnerati, *Jard. & Selby, Ill. Orn.* text to pl. v. (1826); *iid. op. cit.* pl. C.
Phyllornis muelleri, *Temm. Pl. Col.* 81, *text to art.* P. cyanopogon; *Less. Rev. Zool.* 1840, p. 165.
Phyllornis sonneratii, *Less. Rev. Zool.* 1840, p. 165; *Gray, Gen. B.* i. p. 124; *Bp. Consp.* i. p. 396.
Phyllornis javensis, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 260 (pt.); *Gray, Hand-l. B.* i. p. 277, no. 4070.

*Adult male* (East Java, Wallace). General colour above grass-green; wing-coverts like the back; quills blackish, externally grass-green, the inner secondaries exactly like the latter; a conspicuous shoulder-spot of bright cobalt, formed by the least wing-coverts; tail dark green, dusky blackish along the inner webs; lores and feathers at base of nostrils, eyelid (excepting the hinder part), sides of face, and throat black, a shade of yellowish green extending from the base of the forehead over the eye across the hinder ear-coverts and down the sides of the neck, skirting the black throat and pervading the fore neck; on the cheeks a violet moustachial streak; remainder of under surface of body bright green; axillaries and under wing-coverts light ashy, washed with green at the tips, the edge of the wing green; quills light ashy brown below, paler along the inner webs. Total length 8·5 inches, culmen 0·9, wing 4·05, tail 3·0, tarsus 0·8.

*Adult female.* Green, without the black throat of the male; round the eye a ring of yellow feathers; throat yellow; a slight indication of a light-blue moustache. Total length 8·5 inches, culmen 0·85, wing 3·65, tail 3, tarsus 0·8. (*Mus. R. G. Wardlaw Ramsay.*)

*Young* (type of *Turdus viridis*, Horsf.). Differs from the adult in entirely wanting the black throat, and in being dull green all over, with rather more yellow about the face and throat.

The Blue-shouldered Green Bulbul appears to be confined to the island of Java.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | E. Java. | A. R. Wallace, Esq. [C.]. |
| *b.* Juv. sk. | Java (*Horsfield*). | India Museum. (Type of *Turdus viridis*.) |
| *c.* ♀ ad. sk. | Java (*Horsfield*). | India Museum. |
| *d.* ♂ ad. sk. | Java (*Horsfield*). | India Museum. (Type of *Meliphaga javensis*.) |

### 6. Chloropsis zosterops.

? Chloropsis gampsorhynchus*, *Jard. & Selby, Ill. Orn.*, text to pl. v., pl. vii., text to pl. C.
Chloropsis zosterops, *Vigors, App. Mem. Life Raffl.* p. 674; *Jard. & Selby, t. c.* text to pl. C.
Phyllornis gampsorhynchus, *Less. Rev. Zool.* 1840, p. 165.
Chloropsis sonneratii (*nec J. & S.*), *Blyth, J. A. S. Beng.* xi. p. 106 (1842), xii. p. 958 (1843).
Phyllornis sonneratii (*nec J. & S.*), *Blyth, Cat. B. Mus. As. Soc.* p. 213; *Reichenb. Handb., Meropinæ*, p. 98, t. ccccIxxvii. figs. 3320–21; *Jerd. B. Ind.* ii. p. 100; *Pelz. Reis. Nov. Vög.* pp. 57, 161; *Salvad. Ucc. Born.* p. 193; *Sharpe, Ibis*, 1877, p. 15, 1879, p. 256.
Phyllornis gampsorhynchus, *Cab. Mus. Hein.* i. p. 115 (*nec J. & S.*).
Phyllornis javensis (*nec Horsf.*), *Moore, P. Z. S.* 1854, p. 280; *Gould, B. Asia*, part xiii.; *Sclater, P. Z. S.* 1863, p. 219; *Tickell, J. A. S. Beng.* xxiv. p. 277; *Walden, Ibis*, 1871, p. 168; *Blyth & Wald. B. Burm.* p. 136; *Hume & Davis. Str. F.* 1878, vol. vi. pp. 334, 516; *Hume, Str. F.* 1879, p. 99.
Phyllornis cyanopogon (*nec Temm.*), *Sharpe, Ibis*, 1876, p. 40 (*lapsu*).
Phyllornis viridis, *Tweedd. Ibis*, 1877, p. 305.

*Adult male* (Sumatra, Wallace). General colour above deep grass-green, a little lighter on the head and neck; wing-coverts like the back, the quills dusky blackish, externally green, the inner secondaries entirely of the latter colour; a shoulder-spot of vivid emerald-green, formed by the least wing-coverts; tail-feathers green, lighter on the edges, and dusky blackish along their inner webs; lores, feathers round the eye (excepting the hinder margin), sides of face, and entire throat black; a lighter green shade extends from the forehead over the eyes and down the sides of the neck onto the fore neck, the hinder part of the ear-coverts and cheeks being green; a moustachial streak of deep violet-cobalt; remainder of under surface of body bright green; axillaries and edge of wing green, like the breast; under wing-coverts ashy, washed with green at the tips; quills ashy brown below, paler along the inner webs. Total length 8 inches, culmen 0·9, wing 3·85, tail 3, tarsus 0·8.

*Adult female.* Wants the black throat of the male. General colour green, including the wings and tail; least wing-coverts emerald-green; round the eye a ring of yellow, as well as a small spot at the gape; throat yellow, fore part of cheeks marked with a small blue moustachial streak. Total length 7·5 inches, culmen 0·85, wing 3·5, tail 2·6, tarsus 0·75.

*Young bird.* Resembles the old female, but has no blue moustache. Young males assuming the black throat, and still retaining part of the yellow throat of the female, are not uncommon in collections. The black feathers have either yellow or green tips, which

* Founded on a young bird, either of the present species or of *P. viridis*. It is impossible to tell from the figure.

would make it appear that the black throat is gained by a gradual change of feather. I can find no evidence of a direct moult.

Mr. Alfred Everett gives the soft parts as follows :—

♂. Jambusan. Iris chocolate ; bill and legs black.
♂. Sibu. Iris chocolate-brown ; legs light green ; bill black.
♂. Busan. Iris dark brown ; legs leaden.

In Lieut. Wardlaw Ramsay's collection are the following specimens collected by himself :—

♂. Malacca. Iris dark brown ; bill black ; legs yellowish green.
♂. Malacca. Iris bright brown ; legs bluish slate.
♀. Malacca. Iris and legs as in preceding specimen ; bill blackish, the base of the lower mandible albescent.

Mr. Davison's notes on the soft parts are as follows :—"Legs, feet, and claws pale to dark plumbeous ; bill black, the base of lower mandible sometimes brown ; irides vary—brown, wood-brown, lake, or crimson ; eyelids blackish grey."

The Malachite-shouldered Green Bulbul is found in the islands of Borneo and Sumatra, where it is apparently not rare. It ranges through the Malay peninsula to the forests of Central and Southern Tenasserim.

| | | |
|---|---|---|
| *a*. ♂ ad. sk. | Tenasserim. | J. C. D. Packman, Esq. [P.]. |
| *b*. ♂ ad. ; *c*. ♂ juv. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *d*, *e*. ♂, *f*, *g*. ♀ ad. sk. | Malacca (*Dr. Cantor*). | India Museum. |
| *h*. ♂ imm. sk. | Malacca (*Griffith*). | India Museum. |
| *i*. ♂ imm. sk. | Malacca. | W. Harvey, Esq. [P.]. |
| *k*. ♂ ad. sk. | Sumatra (*Raffles*). | India Museum. |
| *l*. ♀ ad. sk. | Sumatra (*Raffles*). | India Museum. (Type of species.) |
| *m*, *n*. ♂ ♀ ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *o*, *p*. ♂ ♀ ad. sk. | Lumbidan, N.W. Borneo (*Hugh Low*). | R. B. Sharpe, Esq. [P.]. |
| *q*. ♀ ad. sk. | Sarawak. | A. R. Wallace, Esq. [C.]. |
| *r*. ♂ imm. sk. | Sarawak, Dec. 1878. | Henry Everett, Esq. [C.]. |
| *s*. ♂ ad. sk. | Jambusan, 1874. | Alfred Everett, Esq. [C.]. |
| *t*. ♂ ad. sk. | Sibu, August 1874. | Alfred Everett, Esq. [C.]. |

### 7. Chloropsis jerdoni.

Chloropsis cæsmarhynchus*, *Tickell, J. A. S. Beng.* ii. p. 577.
Chloropsis cochinchinensis (*nec Gm.*), *Jard. & Selby, Ill. Orn.* text to pl vii. (1826) ; *Jerd. Madr. Journ.* x. p. 247 ; *Blyth, J. A. S. Beng.* xii. p. 957.
Chloropsis malabaricus (*nec Gm.*), *Jard. & Selby, Ill. Orn.* text to pl. C.

* Supposed by Horsfield and Moore to have been a misprint for *gampsorhynchus* of Jardine and Selby.

Phyllornis jerdoni, *Blyth, J. A. S. Beng.* xiii. p. 392, xiv. p. 566; *id. Cat. B. Mus. As. Soc.* p. 212; *Bp. Consp.* i. p. 396; *Layard, Ann. Nat. Hist.* xii. p. 176 (1843); *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 259; *Gould, B. Asia*, pt. xiii.; *Jerd. B. Ind.* ii. p. 97; *Gray, Hand-l. B.* i. p. 277, no. 4072; *Holdsw. P. Z. S.* 1872, p. 451; *Ball, Str. F.* 1874, p. 410; *Hume, Nests & Eggs Ind. B.* p. 294; *Fairb. Str. F.* 1876, p. 259; *id. Str. F.* 1877, p. 406; *Ball, tom. cit.* p. 417; *Davison & Wenden, Str. F.* 1878, vol. ii. p. 82; *Ball, tom. cit.* p. 215; *Hume, Str. F.* 1879, viii. p. 99; *Legge, B. of Ceylon*, p. 483.

Phyllornis casmarhynchus, *Gray. Gen. B.* i. p. 124.

Chloropsis jerdoni, *Jerd. Madr. Journ.* xiii. pt. 2, p. 124; *id. Ill. Ind. Orn.* pl. 43.

*Adult male.* General colour above light grass-green, the head dull yellow, gradually shading into the green of the occiput and nape, which approaches emerald-green in shade; wing-coverts green like the back, the median series washed with bluish green, the lesser coverts bright turquoise-blue, showing a conspicuous shoulder-patch; quills blackish brown, externally green, the primaries yellow towards the tips of the outer webs; inner secondaries entirely green; tail-feathers green; eyelid dull yellow, except on its anterior edge, which is black, like the lores; feathers below the eye, cheeks, and throat black; ear-coverts dull yellow, with an ochraceous shade, separated from the black throat by a band of dull yellow, which extends from behind the eye down the sides of the neck onto the lower throat, where it forms a gorget; a conspicuous moustachial streak of violet-cobalt on the fore part of the cheeks; remainder of under surface emerald-green, deeper green on the sides; under wing-coverts and axillaries green, with ashy-grey bases; edge of wing emerald-green; quills ashy brown below, lighter along the inner webs; "bill blackish; legs and feet pale bluish, milky blue, or pale lavender; iris brown or pale brown" (*Vincent Legge*). Total length 7·8 inches, culmen 0·8, wing 3·45, tail 3, tarsus 0·75.

*Adult female.* Differs from the male in wanting the black throat, the latter being pale turquoisine blue; the fore part of the cheeks brighter turquoise; lores and feathers round the eye dull yellow, as well as a broad streak running from the hinder part of the cheeks down the side of the neck to the lower throat, where it forms an indistinct gorget; ear-coverts dull ochraceous yellow, like the crown. Total length 6·8 inches, culmen 0·85, wing 3·35, tail 2·8, tarsus 0·75.

Jerdon's Green Bulbul occurs throughout the greater part of India, but does not extend to Lower Bengal or the sub-Himalayan districts. It is also found nearly all over Ceylon.

| | | |
|---|---|---|
| *a, b.* ♂ ♀ ad. sk. | Bengal. | India Museum [P.]. |
| *c.* ♂ ad. sk. | Travancore. | Major Biddulph [C.]. |
| *d, e, f.* ♂, *g.* ♀ ad. sk. | Madras. | Rev. H. H. Baber [P.]. |
| *h.* ♂ imm. sk. | Madras. | Rev. H. H. Baber [P.]. |
| *i.* ♂ ad.; *k.* ♂ juv. | Behar. | B. H. Hodgson, Esq. [P.]. |

### 8. Chloropsis media.

Phyllornis media, *Bp. Consp.* i. p. 396 (*ex Müller, MS. in Mus. Lugd.**); *Gray, Hand-l. B.* i. p. 277, no. 4076; *Wardlaw Ramsay, P. Z. S.* 1880, p. 14.

Phyllornis aurifrons, *Cab. Mus. Hein.* Th. i. p. 114.

*Adult male* (Sumatra, C. Bock). General colour above bright grass-green, the wing-coverts a little darker green than the back; least wing-coverts bright cobalt-blue, forming a shoulder-patch; quills blackish, externally green like the back, confined to the outer web of the primaries, but extending over both webs of the secondaries, the primaries slightly shaded with yellow on the outer web; tail-feathers green, dusky along the edge of the inner web; forehead yellow, extending over the centre of the crown; lores, sides of face, sides of throat, as well as the throat itself, and the hind neck black, relieved by a moustachial line of purplish cobalt; remainder of under surface of body emerald-green, darker on the sides of the body and flanks; under wing-coverts and axillaries emerald-green, the lower ones light ashy grey washed with green, the edge of the wing blue; quills ashy below, lighter grey along the edge of the inner web. Total length 7·5 inches, culmen 0·8, wing 3·95, tail 3, tarsus 0·85. (*Mus. R. G. Wardlaw Ramsay.*)

*Adult female* (Mount Sago, Sept. 1, 1878; C. Bock). Very similar to the male, but without any yellow on the forehead; round the eye a ring of yellowish green; no black on the sides of the face and throat, which are green like the rest of the body; a faintly indicated moustachial line of greenish cobalt; "iris dark brown" (*Bock*). Total length 7 inches, culmen 0·8, wing 3·5, tail 3·1, tarsus 0·75. (*Mus. R. G. Wardlaw Ramsay.*)

*Young male.* Green, like the old female, but with a brighter blue moustache and yellow forehead, the latter, however, not so bright as in the adult male. (*Mus. R. G. Wardlaw Ramsay.*)

The Orange-fronted Green Bulbul is, as far as is known, peculiar to Sumatra.

| | | | |
|---|---|---|---|
| *a.* ♂ ad. sk. | Lolo, Sumatra (*C. Bock*). | Lieut. R. G. Wardlaw Ramsay. |
| *b.* ♀ juv. sk. | Sumatra (*C. Bock*). | Lieut. R. G. Wardlaw Ramsay. |

### 9. Chloropsis nigricollis.

Le Verdin de la Cochin Chine, *Daubent. Pl. Enl.* 643, fig. 3; *Buff. Hist. Nat. Ois.* iii. p. 392.

Turdus cochinchinensis, *Gm. S. N.* i. p. 825 (*ex Daubent.*); *Audeb. & Vieill. Ois. Dor.* ii. pls. 77, 78.

Philemon nigricollis, *Vieill. Nouv. Dict.* xxvii. p. 432.

Phyllornis cochinchinensis, *Temm. Pl. Col.* 484, fig. 2; *Less. Rev. Zool.* 1840, p. 164; *Gray, Gen. B.* i. p. 124; *Bp. Consp.* i. p. 396 (pt.); *Gray, Hand-l. B.* i. p. 277, no. 4080; *Walden, Ibis,* 1871, p. 169.

Chloropsis nigricollis, *Nicholson, Ibis,* 1881, p. 148.

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* Type examined.

*Adult male.* General colour above grass-green, a little brighter and more yellowish green on the head and neck; wing-coverts like the back, with lighter green edges to the greater series, the whole of the lesser coverts light cobalt-blue, forming a conspicuous shoulder-patch; bastard wing- and primary-coverts deep blue, washed with green; quills blackish, externally bluish; the secondaries green on the outer web, the inner secondaries entirely green; tail-feathers dark green, the outer feathers blue with green edges; lores, fore part of eyelid, feathers below the eye, and throat black; fore neck bright yellow, forming a gorget, with which is connected a yellowish band which skirts the black throat, passes through the ear-coverts (which are green), round the hinder eyelid, and forms a narrow superciliary streak above the eye, ending at the base of the nostrils; remainder of under surface of body bright green, the axillaries like the breast; under wing-coverts light ashy, washed with green on the edges; quills ashy brown below, paler along the edge of the inner webs; "iris dark brown or black" (*H. O. Forbes*). Total length 7·8 inches, culmen 0·75, wing 3·35, tail 2·9, tarsus 0·75.

*Adult female.* Wants the black throat of the male; green above, like the latter, and with the same blue on the wings and tail; lores, eyelid, and sides of face emerald-green, with a shade of cobalt-blue on the fore part of the cheeks, forming a moustache; throat emerald-green; fore neck and chest dull yellow; remainder of under surface of body bright green; under wing-coverts as in the male. Total length 6·7 inches, culmen 0·7, wing 3·05, tail 2·7, tarsus 0·7.

*Young.* Another female, collected by Mr. Wallace, is apparently a younger bird, having the throat not so bright emerald-green and wanting the blue moustache.

The Javan Green Bulbul is apparently peculiar to the island of Java.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | East Java. | A. R. Wallace, Esq. [C.]. |
| *b, c.* ♀ ad.; *d.* ♀ juv. sk. | East Java. | A. R. Wallace, Esq. [C.]. |
| *e.* ♀ ad. sk. | West Java. | A. R. Wallace, Esq. [C.]. |

### 10. Chloropsis chlorocephala.

Phyllornis cochinchinensis, *Blyth, Cat. B. Mus. As. Soc.* p. 213 (*nec Gm.*, pt.).

Phyllornis chlorocephalus, *Walden, Ann. Nat. Hist.* ser. 4, vii. p. 241 (1871); *Blyth & Walden, B. Burm.* p. 137; *Hume, Str. F.* 1875, p. 127; *id. Str. F.* 1877, p. 35; *Hume & Davison, Str. F.* 1878, vol. vi. pp. 323, 516; *Hume, Str. F.* 1879, p. 99.

*Adult male* (type of species: Toughoo). General colour above grass-green, the forehead rather lighter and more emerald-green, shaded with golden on the crown, nape, sides of neck, and hinder neck; wing-coverts rather darker green than the back; lesser wing-coverts bright cobalt-blue, forming a conspicuous shoulder-patch; bastard wing- and primary-coverts deep blue, rather lighter blue on

their margins ; quills blackish, the primaries externally bright blue, the secondaries bluish green edged with brighter green, the inner secondaries entirely grass-green ; tail dull blue, the centre feathers grass-green ; base of forehead and eyebrow and eyelid yellow ; lores, anterior edge of eyelid, feathers below the eye, cheeks, and throat black ; sides of crown and ear-coverts emerald-green, the latter shaded with golden and separated from the black throat by a broad band of yellow, which crosses the ear-coverts and hinder cheeks and descends onto the fore neck, where it forms a gorget, which is faintly shaded with emerald-green ; a small moustachial streak of violet-cobalt on the fore part of the cheeks ; remainder of under surface of body emerald-green, slightly yellowish green on the breast ; axillaries and under wing-coverts emerald-green, with greyish bases ; quills dusky brown below, ashy along the inner webs ; "bill black ; legs pale slate-colour ; iris umber-brown" (*Wardlaw Ramsay*). Total length 6·6 inches, culmen 0·8, wing 3·4, tail 2·8, tarsus 0·65. (*Mus. R. G. Wardlaw Ramsay.*)

Mr. Hume gives the soft parts (Stray Feath. 1875, p. 128) :— "Legs and feet plumbeous or dull horny blue ; claws plumbeous horny, brown at tips ; bill black ; iris deep brown."

*Adult female.* Very similar to the male as regards the green and blue coloration, but wants the black throat and yellow on the sides of the head and gorget ; forehead and lores, as well as feathers round the eye, emerald-green, with a slight tinge of blue in front of the eye ; on the cheeks a small moustachial streak of pale turquoise-blue ; throat emerald-green, slightly tinged with blue ; remainder of under surface pale yellowish green, deeper green on the sides of the body. Total length 6·1 inches, culmen 0·75, wing 3·05, tail 2·55, tarsus 0·65. (*Mus. R. G. Wardlaw Ramsay.*)

*Young male.* Exactly like the female, except that it wants the blue tinge on the chin and middle of the throat, that it generally exhibits traces of a subterminal brown band on the tertiaries, and the shoulder-patch is of almost the same colour as that of the adult male, though less in extent (*Hume*).

The Burmese Green Bulbul is found in the hill-country of the Indo-Chinese subregion from Pegu and Tenasserim through Burmah (Tonghoo and Karen-nee) and Cachar to Cochin China.

| | | |
|---|---|---|
| *a, b.* ♂ ♀ ad. sk. | Saigon, Cochin China. | M. E. Pierre [P.]. |
| *c.* ♂ ad. sk. | Tenasserim. | J.C.D.Packman,Esq.[P.]. |
| *d.* ♂ ad. sk. | Pakchan, Tenasserim, Jan. 24, 1875 (*W. Davison*). | A. O. Hume, Esq. |
| *e.* ♂ juv. sk. | Bankasoon,Tenasserim, April 10, 1877 (*W. Davison*). | A. O. Hume, Esq. |
| *f.* ♂ ad. sk. | Tonghoo. | Lieut. R. G. Wardlaw Ramsay. |
| *g.* ♂ ad. sk. | Karen hills, Nov. 1874 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |

### 11. Chloropsis icterocephala.

Turdus cochinchinensis, *Raffles, Trans. Linn. Soc.* xiii. p. 309 (*nec Gm.*).
Phyllornis malabaricus (*nec Gm.*), *Temm. Pl. Col.* 512, fig. 2, text; *Lesson, Traité*, p. 301.
Verdin icterocephale, *Temm. Pl. Col.* 512, fig. 2; *Lesson, Traité*, p. 301.
Phyllornis icterocephalus, *Lesson, Rev. Zool.* 1840, p. 164.
Chloropsis malabaricus, *Blyth, J. A. S. Beng.* xii. p. 957 (*nec* ♀).
Phyllornis moluccensis, *J. E. Gray, Zool. Misc.* p. 33; *Strickl. P. Z. S.* 1846, p. 100.
Phyllornis cochinchinensis, pt., *Blyth, Cat. B. Mus. As. Soc.* p. 213.
Phyllornis icterocephala, *Bp. Consp.* i. p. 395 (*ex Temm.*); *Cab. Mus. Hein.* i. p. 114; *Reichenb. Handb., Meropinæ*, p. 98, Taf. ccccxlxiv. fig. 3319; *Jerd. B. Ind.* ii. p. 100; *Gray, Hand-l. B.* i. p. 267, no. 4074; *Walden, Ibis*, 1871, p. 168; *Tweedd. Ibis*, 1877, p. 305; *Hume, Str. F.* 1879, p. 63.
Phyllornis cochinchinensis, *Bp. Consp.* i. p. 396 (*nec Gm.*); *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 260; *Stoliczka, J. A. S. B.* xxxix. p. 314 (1870).
Phyllornis mysticalis, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 411 (*nec Swains.*); *Moore, P. Z. S.* 1854, p. 280.

*Adult male.* General colour above bright green; least wing-coverts bright metallic cobalt, the remainder of the wing-coverts and secondary quills deep blue, externally broadly edged with grass-green; primary-coverts deep blue; primaries blackish, externally deep blue; tail-feathers blue, the centre ones washed with green along their outer webs; forehead and crown, as well as the sides of the latter and the ear-coverts, bright lemon-yellow, descending along the hinder part of the cheeks to the sides of the neck, and meeting on the fore neck below the black throat; nape deeper orange-yellow, the hind neck and mantle also washed with this colour, which also extends onto the sides of the neck; lores, all the eyelid except the hiuder part, feathers below the eye, fore part of cheeks, and throat black, narrowing to a point on the latter; on the cheeks a deep blue spot near the base of the bill; remainder of under surface of body bright green, a little more yellow down the centre of the body; thighs slightly washed with blue; wing-coverts dark ashy, the longer series slightly tipped with green; the edge of the wing blue, or washed with greenish blue; axillaries green, like the breast; quills dark ashy below, slightly paler along the edge of the inner webs. Total length 6·8 inches, culmen 0·65, wing 3·35, tail 2·75, tarsus 0·7.

*Adult female.* General colour bright green, with a slight wash of yellow on the hinder neck and sides of neck; no black on the face or throat; wing-coverts deep blue, the greater series edged with green; least wing-coverts fine cobalt-blue, but the shoulder-patch not so big as in the male; quills blackish, the primaries externally greenish blue, inclining to silvery grey near the tips of the outer webs, the secondaries bluish green on the outer webs, edged with green, the innermost secondaries entirely green; tail-feathers bluish, with green edges; frontal feathers and lores decidedly

yellower than the head, the eyebrow rather paler also; eyelid yellow; sides of face green, washed with blue in the region of the eye; ear-coverts washed with golden yellow; at the base of the cheeks a small spot of greenish blue; under surface of body light green, inclining to yellowish green in the centre of the breast and abdomen; the throat very faintly washed with bluish; under wing-coverts ashy, washed with bluish green, brighter near the edge of the wings; axillaries pale green, like the breast; quills ashy below, lighter along the edge of the inner web. Total length 6 inches, culmen 0·7, wing 2·9, tail 2·3, tarsus 0·65.

*Young male.* Similar to the adult female, but with more of a golden shade on the head and nape, the primaries much brighter blue; under surface green, with signs of black appearing on the moustache.

The Golden-headed Green Bulbul is found plentifully in the Malayan peninsula, ranging as far as Province Wellesley. It is also frequent in Sumatran collections.

| | | |
|---|---|---|
| *a.* Juv. sk. | Malacca (*Dr. Cantor*). | India Museum [P.]. |
| *b, c.* ♂ ad. sk. | Malacca. | Capt. Stackhouse Pinwill [P.]. |
| *d.* ♂ ad., *e.* ♂ juv. sk. | Malacca. | W. Harvey, Esq. [P.]. |
| *f.* ♂ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *g.* ♂ ad. sk. | Malacca, Aug. 3, 1873 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |
| *h.* ♂ ad., *i.* [♀ ad.] sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *k, l.* ♂ ♀ ad. sk. | Sumatra. | Purchased. |

### 12. **Chloropsis viridinucha.** (Plate I.)

Phyllornis icterocephala (*nec Less.*), *Salvad. Ucc. Born.* p. 195.
Phyllornis viridinucha, *Sharpe, Ibis*, 1877, p. 15; *Tweedd. t. c.* p. 305; *Sharpe, Ibis*, 1878, p. 414.

*Adult male* (type of species). General colour above dark grass-green, the wing-coverts a little deeper green than the back, with a subterminal shade of deep blue; a very conspicuous shoulder-spot of very rich deep cobalt, formed by the lesser series of coverts; bastard wing- and primary-coverts deep ultramarine-blue; quills blackish, externally ultramarine, the secondaries bluish green, edged with dark green, the inner secondaries entirely dark green; tail dark blue, slightly shaded with green on the margins of the feathers, the inner webs of which are dusky, the centre tail-feathers greener than the others; frontal plumes and fore part of crown bright yellow, shading into green on the occiput and nape, the hind neck being like the back; lores, anterior margin of eyelid, feathers below the eye, cheeks, and throat black, with a very faintly indicated moustachial spot of deep violet at the base of the lower mandible; hinder part of cheeks bright yellow, this colour extending from behind the eye across the ear-coverts down the sides of the neck, skirting the black throat and occupying the chest, which is bright yellow; remainder of under surface of body emerald-green,

a little deeper on the flanks and lighter on the thighs; axillaries bluish green, with dusky grey bases; under wing-coverts dusky grey, slightly washed with bluish green; edge of wing ultramarine; quills dusky blackish below, ashy along the edge of the inner webs; "bill jet-black; legs greenish lead-colour; iris dark brown" (*Alfred Everett*). Total length 6·6 inches, culmen 0·7, wing 3·2, tail 2·55, tarsus 0·65.

*Adult female.* Wants the black throat of the male. Green above, with a slight golden shade on the crown and ear-coverts; lores and feathers round the eye emerald-green; throat and under surface of body emerald-green, with a small moustachial streak of pale cobalt-blue; scapulars and wing-coverts a little darker green than the back; the shoulder-spot a little smaller and the blue on the wing not so bright as in the male. Total length 6·2 inches, culmen 0·7, wing 2·9, tail 2·3, tarsus 0·65.

A male from Simunjon (*Alfred Everett*) has the legs "green" and the eye "black" (*Mus. R. G. Wardlaw Ramsay*).

Everett's Green Bulbul replaces the foregoing species in the island of Borneo, to which locality it is confined.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Borneo. | Hugh Cuming, Esq. |
| *b.* ♂ ad. sk. | Bintulu, N.W. Borneo. | Alfred Everett, Esq. [C.]. (Type of species.) |
| *c.* ♀ ad. sk. | Tagora, Sarawak. | Alfred Everett, Esq. [C.]. |

### 13. Chloropsis cyanopogon.

Phyllornis cochinchinensis (*nec Gm.*), *Raffl. Trans. Linn. Soc.* xiii. p. 309.

Phyllornis cyanopogon, *Temm. Pl. Col.* 512, fig. 1; *Lesson, Rev. Zool.* 1840, p. 165; *Gray, Gen. B.* i. p. 124; *Blyth, Cat. B. Mus. As. Soc.* p. 213; *Bp. Consp.* i. p. 396; *Cab. Mus. Hein.* Th. i. p. 114; *Reichenb. Handb., Meropinæ*, p. 97, Taf. ccccl.xiv. fig. 3318; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 410; *Moore, P. Z. S.* 1854, p. 280; *Schl. Handl. Dierk.* i. p. 275; *Gould, Birds of Asia*, pt. xiii.; *Jerd. B. Ind.* ii. p. 100; *Gray, Hand-l. B.* i. p. 277, no. 4071; *Walden, Ibis*, 1871, p. 168; *Salvad. Ucc. Born.* p. 194; *Sharpe, Ibis*, 1877, p. 15; *Tweedd. Ibis*, 1877, p. 305; *Hume & Davison, Str. F.* 1878, vol. vi. p. 325; *Sharpe, Ibis*, 1879, p. 256; *Hume, Str. F.* 1871, pp. 62, 99.

Chloropsis mystacalis, *Swains. An. in Menag.* p. 296.

Phyllornis mysticalis, *Lesson, Rev. Zool.* 1840, p. 165; *Gray, Gen. B.* i. p. 124.

Phyllornis cochinchinensis (*nec Gm.*), *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 260.

*Adult male.* General colour above grass-green, the wing-coverts like the back; the least series rather brighter green, but no shoulder-patch formed of them; quills dusky blackish, externally green like the back, the primaries yellowish towards the tip of the outer web; tail-feathers dark green, dusky blackish along the inner web; lores, anterior edge of eyelid, feathers below the eye, cheeks, and throat black, with a moustachial streak of dark cobalt; sides of neck and under surface of body bright green, more yellow

on the fore neck, breast, abdomen, thighs, and under tail-coverts; a narrow superciliary line of yellowish runs across the ear-coverts along the side of the neck and joins the fore neck, skirting the black of the head and throat; axillaries green, with grey bases; under wing-coverts ashy, washed with yellowish green; quills ashy brown below, paler along the edge of the inner web; "legs and feet dark plumbeous; bill black; irides dark brown" (*W. Davison*). Total length 6·2 inches, culmen 0·7, wing 3·05, tail 2·45, tarsus 0·7.

*Adult female.* Wants the black throat of the male. General colour green above, yellowish green below; the thighs yellowish; lores and feathers round the eye yellowish green; a moustachial streak of cobalt-blue on the cheeks. Total length 6·5 inches, culmen 0·65, wing 3, tail 2·65, tarsus 0·65.

The Blue-whiskered Green Bulbul is found in Borneo, Sumatra, and the Malayan peninsula, whence it ranges into the extreme south of the Tenasserim province.

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|---|---|---|
| *a, b.* ♂ ♀ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *c, d.* ♂ ad. sk. | Malacca (*Dr. Cantor*). | India Museum. |
| *e.* ♀ ad. sk. | Sumatra (*Raffles*). | India Museum. |
| *f.* ♀ ad. sk. | Borneo. | Purchased. |
| *g.* ♂ juv. sk. | N.W. Borneo. | Hugh Low, Esq. [C.]. |
| *h, i.* ♂ ♀ ad. sk. | N.W. Borneo (*Hugh Low*). | R. B. Sharpe, Esq. [P.]. |
| *k, l.* ♂ ♀ ad. sk. | Bintulu. | Alfred Everett, Esq. [C.]. |

## 14. Chloropsis palawanensis.

Phyllornis palawanensis, *Sharpe, Trans. Linn. Soc.* 2nd series, *Zool.* vol. i. p. 333, pl. 50. figs. 1, 2; *Tweeddale, P. Z. S.* 1878, p. 619.

*Adult male* (type of species). General colour above bright grass-green, the head brighter, and the forehead decidedly yellower; wing-coverts green like the back, with bluish bases, the least series and the small plumes at the bend of the wing rich purple, forming a shoulder-spot; bastard wing- and primary-coverts blue; primaries black, the outer web blue, the secondaries more or less blue in the centre, shading off externally into the green of the back; tail blue, with a slight wash of green, especially on the centre feathers; sides of the face bright golden yellow, the ear-coverts green on their hinder margin; round the eye a ring of purple feathers; lores and a spot at the base of the lower mandible greenish blue; eyelids dull purple; cheeks lilac, forming a moustachial streak; entire throat bright golden yellow; rest of under surface bright green, as also the axillaries; under wing-coverts and lining of quills dark grey, the inner webs of the latter whitish along their margins; bill black; iris dark brown. Total length 7 inches, culmen 0·85, wing 3·5, tail 2·8, tarsus 0·8. (*Coll. J. B. Steere.*)

*Adult female.* Similar to the male, but having the moustachial streak blue. Total length 6·6 inches, wing 3·3, tail 2·6, tarsus 0·7. (*Coll. J. B. Steere.*)

In my original description, by the omission of some words, I have

conveyed a wrong impression with regard to the differences of the sexes. The above descriptions were taken at the time from Dr. Steere's types, and it will be seen that he had clearly defined the bird with the *blue* moustache to be the *female*. The correctness of this determination has been confirmed by Mr. Alfred Everett (*cf.* Tweeddale, *l. c.*), whose specimens I have examined by the kindness of Lieut. Wardlaw Ramsay.

Steere's Green Bulbul is only known at present from the island of Palawan, in the Philippine archipelago.

| | | |
|---|---|---|
| *a*. ♀ ad. sk. | Puerto Princesa, Palawan, July 1874. | Dr. J. B. Steere [C.]. |

### 15. Chloropsis flavipennis.

Phyllornis flavipennis, *Tweedd. P. Z. S.* 1877, p. 761, pl. lxxvii. fig. 1.

*Adult female*. General colour above bright green, the wing-coverts like the back; primary-coverts green, the outer ones with a faint edging of yellow; quills blackish brown, externally green, the primaries margined with yellow towards their tips, the inner secondaries entirely green, like the back; tail-feathers green, dusky on the inner webs, which are narrowly edged with yellow; lores yellowish, as well as the eyelid; sides of face light green, tinged with yellow on the cheeks; under surface of body light green, slightly paler on the centre of the breast and abdomen; throat yellowish; thighs pale yellow; under wing-coverts and axillaries pale yellowish green; quills dusky below, light yellow along the inner webs; "bill leaden; legs greenish leaden; iris hazel" (*Alfred Everett*). Total length 7·8 inches, culmen 0·85, wing 3·45, tail 2·8, tarsus 0·7. (*Mus. R. G. Wardlaw Ramsay.*)

*Adult male* (type of species). Similar in plumage to the female. Total length 7·5 inches, culmen 0·95, wing 3·65, tail 3, tarsus 0·75. (*Mus. R. G. Wardlaw Ramsay.*)

The island of Zebu or Cebu in the Philippine archipelago is as yet the only recorded habitat for the Yellow-winged Green Bulbul.

| | | |
|---|---|---|
| *a*. Ad. sk. | Cebu (*A. Everett*). | Lieut. R. G. Wardlaw Ramsay. |

### 16. Chloropsis venusta.

Phyllornis venusta, *Bp. Consp.* i. p. 396 (*ex Temm. MS. in Mus. Lugd.*); *Gray, Hand-l. B.* i. p. 277, no. 4077.

*Adult male* (Sumatra: type of species). General colour above bright grass-green, a little duller on the crown; wing-coverts like the back, a little brighter green on the edges, the least series greenish cobalt, forming a shoulder-spot; the edge of the wing also tinged with the same greenish cobalt; primary-coverts and quills dusky brown, externally grass-green, brighter on the margin of the primaries, which are ashy towards the tips of the outer webs, the outermost primary bluish; upper tail-coverts brighter green than

the back; tail-feathers blue, greenish near their bases; forehead purplish blue, the eyebrow and ear-coverts being a little lighter and more cobalt-blue; lores blue-black; feathers below the eye, cheeks, and sides of throat, as well as the chin, bright purplish blue; remainder of the throat blackish; the chest bright orange, separated from the black throat by a shade of pale purplish ash-colour; sides of neck and sides of chest yellowish green; remainder of under surface light grass-green, deeper green on the vent and under tail-coverts; under wing-coverts and axillaries white, tinged with green, more especially on the outer edge of the wing; quills dusky brown below, whitish along the edge of the inner web. Total length 5·5 inches, culmen 0·65, wing 2·75, tail 2·15, tarsus 0·65. (*Mus. Lugd.*)

*Adult female.* Similar to the male in most respects, but distinguished at once by the colour of the throat, which is blue, of the same shade as the forehead, eyebrow, sides of face, and ear-coverts. The purplish-blue colour which ornaments the face of the male is absent in the hen bird; the breast also is a little more yellow than the rest of the underparts, but there is no orange as in the male. Total length 5·6 inches, culmen 0·7, wing 2·7, tail 2·2, tarsus 0·65. (*Mus. Lugd.*)

The Blue-fronted Green Bulbul is at present only known from the typical specimens in the Leyden Museum. The species is one of the smallest and most beautiful of the genus, and is apparently confined to the island of Sumatra.

## 4. HYPSIPETES.

| | Type. |
|---|---|
| Hypsipetes, *Vigors, P. Z. S.* 1831, p. 43 | H. psaroides. |
| Galgulus, *Kittl. Kupf. Vög.* Heft 1, p. 7 (1832, *nec Briss.*) | H. amaurotis. |
| Microscelis, *Gray, List Gen. B.* 1840, p. 28 | H. amaurotis. |
| Orpheus, *Temm. & Schl. Faun. Japon., Aves*, p. 68, tab. xxxi. B. | H. amaurotis. |

Cf. *A. O. Hume, Str. Feathers*, 1878, p. 296.

Foot of *Hypsipetes psaroides*, to show tarsal envelope without scutes.

*Range.* Indian peninsula, Ceylon and Nicobar Islands; throughout the Burmese countries to China, Japan, Hainan, and Formosa.

*Key to the Species.*

*a*. Bill red or yellow in skin.
  *a'*. Head black.
    *a''*. Throat and under surface of body grey.
      *a'''*. Ear-coverts hoary grey, like the throat; cheeks with a broad black stripe along them; general colour very pale grey above and below ..... *psaroides*, p. 36.
      *b'''*. Ear-coverts dark grey, not much lighter than sides of head and neck; hinder part of cheeks black; body dark slaty grey, the head and mantle blackish; no distinct cap ..... *concolor*, p. 38.
      *c'''*. Ear-coverts dark slate-colour, like the sides of the face; *no* black stripe on cheeks; general colour of both upper and under surface dark slaty grey, paler on the latter ..... *gancesa*, p. 39.
    *b''*. Throat and under surface of body glossy black.
      *d'''*. Quills black; flanks black ..... *perniger*, p. 41.
      *e'''*. Quills externally lavender-grey; flanks washed with plumbeous grey ..... *nigerrimus*, p. 41.
  *b'*. Head white ..... *leucocephalus*, p. 41.
*b*. Bill blackish or deep horn-brown; ear-coverts chestnut-red; head light grey; throat grey, with white tips to the feathers ..... *amaurotis*, p. 42.
*c*. Bill horn-brown; head blackish brown; upper surface dull olive-greenish; ear-coverts dingy ash-grey; throat white; rest of under surface pale yellow, streaked with brighter yellow .. *virescens*, p. 43.

## 1. Hypsipetes psaroides.

Hypsipetes psaroides, *Vigors, P. Z. S.* 1831, p. 43; *Gould, Cent. B. Himal. M.* pl. 10; *M'Clell. P. Z. S.* 1839, p. 159; *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pls. 192, 194. fig. 2; *id. in Gray's Zool. Misc.* p. 83; *Blyth, J. A. S. Beng.* xi. p. 186, xiv. p. 574; *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* 1846, p. 87; *id. Gen. B.* i. p. 238; *Hutton, J. A. S. Beng.* xvii. part 1, p. 10; *Blyth, Cat. B. Mus. As. Soc.* p. 206; *Bp. Consp.* i. p. 261; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 254; *Jerd. B. Ind.* ii. p. 77; *Gray, Hand-l. B.* i. p. 272, no. 3980; *Hume, Nests & Eggs Ind. B.* p. 278; *Cock & Marsh. Str. F.* 1873, p. 355; *Henders. & Hume, Lahore to Yark.* p. 198; *Blyth & Wald. B. Burm.* p. 132; *Scully, Str. F.* 1879, p. 293; *Hume, Str. F.* 1879, p. 98.

*Adult male.* General colour above light slaty grey, the least wing-coverts like the back; the median, greater, and primary-coverts more ashy grey, externally light slaty like the back; quills dusky brown, externally light grey, this shade pervading the whole of the inner secondaries; tail-feathers blackish brown, edged with light slaty grey towards their bases; head and nape glossy greenish black, the feathers lanceolate in shape and forming a conspicuous crest; at the base of the nostrils a spot of hoary grey; ear-coverts hoary

grey: lores, fore part of eyelid, a spot at the base of the lower maudible, another at the base of the chin, and a streak along the hinder part of the cheeks black; under surface of body pale slaty grey, inclining to hoary grey on the fore part of cheeks and throat, the feathers of the latter portion having indistinct white shaft-lines; lower abdomen white, the feathers of the lower breast also edged with white; under tail-coverts white, mottled with ashy-brown bases to the feathers; under wing-coverts and axillaries light ashy brown, with indistinct white tips; quills below light brown, ashy whitish along the edge of the inner web; "bill and feet bright coral-red: irides dark brown; claws horny brown" (*Scully*). Total length 9·5 inches, culmen 1, wing 4·7, tail 4·1, tarsus 0·7.

The sexes measure as follows:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. ♂ ad. Simla (*Mus. H. Seebohm*) | 9·0 | 1·0 | 4·6 | 3·85 | 0·75 |
| *b*. ♀ ad. N.W. Himalayas (*Pinwill*) | 9·0 | 1·1 | 4·6 | 3·8 | 0·7 |
| *c*. ♀ ad. N.W. Himalayas (*Pinwill*) | 9·3 | 1·05 | 4·6 | 4·0 | 0·75 |

*Nestling*. Ashy brown above and below, the whole plumage of a fluffy character, the wing-coverts with paler brown edges; head dusky blackish.

The *full-grown young* bird is like the adult, but the grey is not so pure and the centre of the body below is white; wing-coverts and quills dark brown, edged with ashy brown; head dingy black, as also the base of the mandibles and chin, but there is no appearance of the black moustache.

It is not easy to draw the line between *H. psaroides* and *H. concolor*; and although Assam specimens are referable to the former bird rather than the latter, there can be no doubt that they are slightly intermediate between the two. Thus Horsfield and Moore, in their 'Catalogue' (p. 255), referred M'Clelland's birds from Assam to *H. gancesa* rather than to *H. psaroides*. In the Tweeddale collection also are specimens from Shillong (*Chennell*) which are likewise darker iron-grey than Himalayan examples, and from the appearance of black bases to the feathers of the mantle show an affinity to *H. concolor*.

The Himalayan Black Bulbul inhabits the whole range of the Himalayas from Cashmere to Assam and Arakan. As mentioned above, the specimens from the eastern part of its range show a tendency to darker coloration, and approach *H. concolor* of the Burmese hills. The species occurs at about 3000 to 5000 feet on the mountains, and is not known to be migratory.

| | | |
|---|---|---|
| *a*. Ad. st. | Cashmere. | Purchased. |
| *b, c, d*. Ad. sk. | Cashmere (*Dr. Bellew*). | India Museum. |

| | | |
|---|---|---|
| *e*, *f*. ♀ ad. sk. | N.W. Himalayas. | Capt. Stackhouse Pinwill [P.]. |
| *g*, *h*, *i*. Ad. sk. | Kumaon (*Strachey*). | India Museum. |
| *k*, *l*, *m*. Ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *n*. Pull. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *o*. Ad. st. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *p*. Ad. sk. | Nepal (*B. H. Hodgson*). | India Museum. |
| *q*. Ad. sk. | Darjiling. | India Museum. |
| *r*. Juv. sk. | Darjiling (*Eccles*). | F. DuCane Godman and O. Salvin, Esqrs. [P.]. |
| *s*. Ad. sk. | Bootan (*Pemberton*). | India Museum. |
| *t*, *u*. Ad. sk. | Assam (*McClelland*). | India Museum. |

(*H. gancesa*, Horsf. & Moore, *l. c.* sp. *b*.)

## 2. Hypsipetes concolor.

Hypsipetes concolor, *Blyth*, *J. A. S. B.* xviii. p. 816; *id. Cat. B. Mus. As. Soc.* p. 207; *Bp. Consp.* i. p. 261; *Gray*, *Hand-l. B.* i. p. 272, no. 3989; *Blyth & Wald. B. Burm.* p. 132; *Hume*, *Str. F.* 1874, p. 276, 1878, p. 295, 1879, p. 98.

Hypsipetes yunnanensis, *Anders. P. Z. S.* 1871, p. 213; *Swinh. P. Z. S.* 1871, p. 369; *David & Oustal. Ois. Chine*, p. 137; *Anders. Zool. Exped. Yun-nan*, p. 656, pl. 50.

Hypsipetes subniger, *Hume*, *Str. F.* 1879, p. 109.

*Adult male* (Ponsee, Kakhyen hills, March 12, 1868, *Dr. J. Anderson*: type of *H. yunnanensis*). General colour above blackish, becoming dark slaty grey on the lower back, rump, and upper tail-coverts; crown of head crested, black, the feathers lanceolate in shape and having a greenish gloss; otherwise the head is scarcely to be distinguished from the blackish mantle; wing-coverts like the back; the greater coverts and quills blackish brown, with dark slaty grey margins; tail-feathers blackish, some of the feathers edged with dark slate-colour; lores, cheeks, and sides of neck black like head, the ear-coverts rather browner; above the hinder part of the eye an ill-defined spot of dark slaty grey; under surface of body dark slate-colour, blackish on the chest, where the feathers are black, with edgings of dusky grey; lower abdomen slightly mixed with white, some of the feathers being edged with this colour; under tail-coverts slaty blackish, margined with white; under wing-coverts and axillaries dark slate-colour, the former rather browner; quills brown below, inclining to ashy brown along the edge of the inner web; "legs, feet, and bill varied from bright to deep coral-red; iris dull crimson-lake" (*Davison*); "bill and legs lake-red; iris hair-brown or brilliant brown" (*Wardlaw Ramsay*, *MS.*). Total length 10 inches, culmen 1·05, wing 4·95, tail 4·3, tarsus 0·7. (*Mus. Ind. Calcutta.*)

The above description has been drawn up from the type of *H. yunnanensis*, kindly lent by Dr. Anderson; however, I have examined, besides, the large series belonging to Lieut. Wardlaw Ramsay, who collected the birds himself in Burmah. Dr. Anderson's bird appears somewhat more ashy brown than the majority of Lieut. Ramsay's skins; but this is, I think, due to the fading away of the grey

coloration into brown, a process which seems to take place in preserved specimens.

The sexes appear to be alike in plumage, but the female is apparently somewhat smaller.

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. ♂. Karen hills (*Wardlaw Ramsay*) ..... | 9·6 | 1·1 | 4·95 | 4·4 | 0·7 |
| *b*. ♀. Karen hills (*Wardlaw Ramsay*) ..... | 8·8 | 1·05 | 4·55 | 3·9 | 0·7 |

Mr. Hume considered at one time that birds from Southern Tenasserim (*H. subniger*, Hume) were distinct from those of the northern part of the province; but recently he has retracted this decision. He writes:—"No doubt the southern birds I thus designated are always somewhat, in some cases, much darker than the northern Pahpoon birds, which agree *precisely* with Blyth's type; but after careful reexamination, I do not think that the difference is sufficient to justify the separation; and I suppress the name *subniger*, and unite all the Tenssserim hill birds, alike southern and northern, under Blyth's name."

The Burmese Black Bulbul is found on the Tonghoo, Karen, and Kakhyen hills in Burmah, and in the hill country of Tenasserim, where it is confined to the more open forests of the northern and central portions of the province; it does not inhabit the summits of the highest hills.

| | | |
|---|---|---|
| *a*. ♀ ad. sk. | Tonghoo, April 6, 1874 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |
| *b*. ♂ ad. sk. | Tonghoo hills, March 29, 1875 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |
| *c*. Ad. sk. | Karen hills, Jan. 1875 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |

### 3. Hypsipetes ganeesa.

Hypsipetes ganeesa, *Sykes, P. Z. S.* 1832, p. 86; *Jard. & Selb. Ill. Orn.* (2nd ser.) iv. pl. 2; *Blyth, J. A. S. Beng.* xiv. p. 574; *Gray, Gen. B.* i. p. 238; *Blyth, Cat. B. Mus. As. Soc.* App. p. 339; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 255; *Jerd. B. Ind.* ii. p. 78; *Gray, Hand-l. B.* i. p. 272, no. 3981; *Holdsw. P. Z. S.* 1872, p. 450; *Fairb. Str. F.* 1876, p. 258; *Hume, t. c.* p. 400; *id. Str. F.* 1879, p. 98; *Legge, B. Ceylon*, p. 469.

Hypsipetes nilghiriensis, *Jerd. Madr. Journ.* 1839, x. p. 245; *Blyth, J. A. S. Beng.* xiv. p. 574; *id. Cat. B. Mus. As. Soc.* p. 207; *Bp. Consp.* i. p. 261; *Layard, Ann. Nat. Hist.* xiii. 1854, p. 125; *Jerd. B. Ind.* ii. p. 78; *Gray, Hand-l. B.* i. p. 272, no. 3983; *Hume, Nests & Eggs Ind. B.* p. 280; *id. Str. F.* 1873, p. 438; *Fairb. Str. F.* 1877, p. 405.

*Adult.* General colour above dark slaty grey, the wing-coverts like the back; greater wing-coverts and quills brown, somewhat paler brown on the edges of the feathers; tail-feathers also brown,

with scarcely any grey edgings; crown of head glossy steel-black, the feathers all lanceolate; sides of face and under surface of body slaty grey; the ear-coverts tinged with brown; lores also washed with ashy grey; some of the feathers of the chin tipped with hoary white, producing a greyish appearance; plumes of abdomen and under tail-coverts also edged with white, the latter more broadly; under wing-coverts and axillaries light earthy brown; quills brown below, lighter along the edge of the inner web; "bill coral-red, the nostril-membrane brown; legs and feet yellowish red, the claws blackish (the latter fade in dried specimens); iris faded red or orange with a dusky tinge" (*W. V. Legge*); "bill orange-vermilion; feet orange-yellow; iris hazel, dyed with lake-red" (*Fairbank*). Total length 9·5 inches, culmen 1·05, wing 4·4, tail 3·85, tarsus 0·75.

The two types measure as follows—Total length 8·5 to 9 inches, culmen 1·05 to 1·1, wing 4·5, tail 4 to 4·15, tarsus 0·7 to 0·75.

*Adult female.* Length 9·6 inches, wing 4·4, tail 3·6, tarsus 0·7. Plumage similar to that of the male. Iris in some specimens slightly brownish. (*W. V. Legge, l. c.*)

*Young.* Throat and under surface lighter than the adult; wings and tail browner, or of a paler hue than in old birds; the quills deeply margined with pale tawny, and the edges of the tail-feathers slightly coloured with the same; tip of the bill and space round the nostril blackish; legs and feet dusky yellowish; iris yellowish brown. (*W. V. Legge, l. c.*)

*Obs.* A variation occurs in the colouring of this species, ranging from grey to brown. This seems to be due to the age of the skin, the colour gradually fading in preserved specimens.

Sykes's Black Bulbul is plentiful on most of the hill-ranges of Southern India, and extends on the western side along the Western Ghats to the Mahabaleshwur hills and to Matheran. In Ceylon it is found in the low country of the southern half of the island in suitable localities. It is not migratory.

| | | |
|---|---|---|
| *a, b.* Ad. sk. | Mahabaleshwur hills (*Sykes*). | India Museum. (Types of species.) |
| *c.* Ad. sk. | Nilghiri hills. | T. C. Jerdon, Esq. [P.]. (Type of *H. nilghiriensis.*) |
| *d, e.* ♂ ♀ ad. sk. | Naugaud, Travancore, 3100 feet, Dec. 21, 1879. | F. W. Bourdillou, Esq. [C.]. |
| *f.* ♀ ad. sk. | Mynall, Nov. 29, 1878. | F. W. Bourdillon, Esq. [C.]. |
| *g.* Ad. sk. | Matheran, Bombay, Jan. 21, 1872. | Major Hayes Lloyd [P.]. |
| *h.* Ad. sk. | Nuwara Eliya district, Ceylon. | Mr. E. Boate [C.]. |
| *i.* ♂ ad. sk. | Ramapoora, Ceylon, Jan. 4, 1866 (*S. Chapman*). | Marquess of Tweeddale [P.]. |
| *k.* Ad. sk. | Ceylon (*Nevill*). | Lieut. R. G. Wardlaw Ramsay. |

### 4. Hypsipetes perniger.

Hypsipetes perniger, *Swinh. Ibis*, 1870, p. 251, pl. ix. fig. 2; *id. P. Z. S.* 1871, p. 369; *David & Oustalet, Ois. Chine*, p. 137.

*Adult.* General colour above and below black, with a steel-green gloss; wings and tail black, the quills a little browner than the rest of the upper surface; under wing-coverts and axillaries like the breast; quills ashy blackish below, ashy brown along the edge of the webs; "bill and legs coral-red, claws brown; iris deep chestnut" (*R. Swinhoe*). Total length 8·5 inches, culmen 1·05, wing 4·7, tail 4, tarsus 0·8.

The Hainan Black Bulbul is only known from the island of Hainan, off the coast of China.

| | | | |
|---|---|---|---|
| *a*. Ad. sk. | Hainan, Feb. 1878. | R. Swinhoe, Esq. [C.]. |
| *b*. Ad. sk. | Hainan, Feb. 1878 (*R. Swinhoe*). | F. DuCane Godman and O. Salvin, Esqrs. [P.]. |

### 5. Hypsipetes nigerrimus.

Hypsipetes nigerrimus, *Gould, P. Z. S.* 1862, p. 282; *id. B. Asia*, part xvi.; *Swinh. Ibis*, 1863, p. 287; *Gray, Hand-l. B.* i. p. 273, no. 3987; *Swinh. P. Z. S.* 1863, p. 287, 1871, p. 369; *David & Oustalet, Ois. Chine*, p. 137.

*Adult.* General colour above black, with a distinct gloss of oily green, less distinct on the crown of the head, which is somewhat bronzed, as also are the ear-coverts; entire under surface of body greenish black, inclining to ashy grey on the flanks, lower abdomen, and under tail-coverts, the latter having nearly obsolete white tips; under wing-coverts and axillaries like the breast; least and median upper wing-coverts like the back, the latter faintly washed with grey on their outer margins; greater wing-coverts, as well as the primary-coverts and quills, blackish, externally blue-grey, the quills being very broadly edged with the latter colour; tail-feathers black, washed with blue-grey on the outer webs; quills below ashy brown, paler along the edge of the inner web; "bill and legs brilliant coral-red; sole-pads and bases of claws dingy ochreous; claws black; inside of mouth and tongue orange-red; skin of eyelid black; iris deep chestnut" (*R. Swinhoe*). Total length 8·4 inches, culmen 0·95, wing 4·75, tail 4·1, tarsus 0·7.

Sexes similar, the female having rather shorter wings (*R. Swinhoe*).

The Formosan Black Bulbul is confined to the island of Formosa, off the coast of China.

| | | | |
|---|---|---|---|
| *a*, *b*. Ad. sk. | N. Formosa, March 1862. | R. Swinhoe, Esq. [C.]. |
| *c*. Ad. sk. | N. Formosa, April 1862 (*R. Swinhoe*). | F. Godman and O. Salvin, Esqrs. [P.]. |

### 6. Hypsipetes leucocephalus.

Le Merle dominiquain de la Chine, *Sonn. Voy. Chine*, ii. p. 191.
White-headed Thrush, *Lath. Gen. Syn.* ii. part 1, p. 59.
Turdus leucocephalus, *Gm. Syst. Nat.* i. p. 826.

Turdus melaleucus, *J. E. Gray, Zool. Misc.* p. 1.
Microscelis melanoleucus, *G. R. Gray, Gen. B.* i. p. 235; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 249; *Gray, Hand-l. B.* i. p. 268, no. 3918.
Hypsipetes niveiceps, *Swinh. Ibis*, 1864, p. 424; *Gray, Hand-l. B.* i. p. 272, no. 3991.
Hypsipetes leucocephalus, *Swinh. P. Z. S.* 1871, p. 369; *Gray, Fasc. B. China*, pl. 2; *David & Oustal. Ois. Chine*, p. 136, pl. 44.

*Adult* [*female*]. General colour above slaty blackish, with a faint greenish gloss; wing-coverts like the back, as also the quills; tail-feathers blackish brown; crown of head, feathers round the eye, fore part of cheeks, and chin snow-white; ear-coverts slaty grey, tinged with brown; throat and under surface of body slaty grey, lighter than the upper surface, the flanks somewhat washed with brown; abdomen slightly mottled with white, with which some of the feathers are rather broadly edged; under tail-coverts ashy brown, with broad white margins; under wing-coverts and axillaries ashy brown; quills ashy brown below, whitish along the inner webs; "bill coral-red; feet reddish orange" (*R. Swinhoe*); "iris blackish" (*David*). Total length 9·3 inches, culmen 0·95, wing 4·4, tail 3·6, tarsus 0·75.

A female in Lieut. Wardlaw Ramsay's collection from Ningpo (*Swinhoe*) measures as follows—Total length 8·5 inches, culmen 0·9, wing 4·5, tail 3·8, tarsus 0·75. There seems to be a difference in the specimens, the latter female being much more grey than a Swatow specimen (*Swinhoe*), also in Wardlaw Ramsay's collection, which is blacker underneath.

The *adult male* does not appear to be represented in English collections, but in the Paris Museum are several examples of this sex. The plumage is a fine glossy black, and the entire head, neck, throat, and breast are snow-white.

The White-headed Black Bulbul occurs only in the hill-ranges of China.

*a.* Ad. sk. Fokien, China. John Gould, Esq.

### 7. Hypsipetes amaurotis.

Turdus amaurotis, *Temm. Pl. Col.* ii. pl. 497; *Less. Traité*, p. 410.
Oriolus squamiceps, *Kittl. Mém. Acad. St. Pétersb. des Savans Etrang.* i. p. 241, pl. xvi. (1831).
Microscelis amaurotis, *Gray, List Gen. B.* 1840, p. 28; *id. Gen. B.* i. p. 235; *Bp. Consp.* i. p. 263; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 249; *Whitely, Ibis*, 1867, p. 199; *Gray, Hand-l. B.* i. p. 268, no. 3916; *Swinh. Ibis*, 1872, p. 207.
Galgulus amaurotis, *Kittl. Kupf. Vög.* Heft 1, p. 8, pl. xii. fig. 1.
Orpheus amaurotis, *Temm. & Schl. Faun. Jap., Aves*, p. 68, pl. xxxi. B.
Hypsipetes amaurotis, *Swinh. Ibis*, 1864, p. 158; *Blakist. & Pryer, Ibis*, 1878, p. 240; *David & Oustalet, Ois. Chine*, p. 135.

*Adult male.* General colour above slaty grey, washed with olive on the lower back and rump; the head clearer and more silvery grey, especially at the tips, giving a distinctly streaked appearance,

which extends on to the nape; lesser wing-coverts like the back, the median and greater series as well as the primary-coverts and quills brown, edged narrowly with fulvous brown, the inner secondaries with grey; tail-feathers brown, narrowly edged with ashy grey; lores blackish; ear-coverts chestnut; checks and throat hoary grey, with whitish tips to the lanceolate feathers; fore neck and breast ashy brown, the sides of the latter slaty grey, the feathers mottled with white spots at their ends; lower abdomen whitish; sides of body reddish brown, mottled with white tips to the feathers like the breast, but smaller; thighs brown; under tail-coverts brown, broadly edged with white; under wing-coverts fawn-colour, the axillaries fulvous brown; quills ashy brown below, pale fawn-colour along the edges of the inner webs; "bill black; legs and feet purplish brown; iris dark hazel" (*Henry Whitely*). Total length 11 inches, culmen 1·2, wing 5·25, tail 5, tarsus 0·9.

A pair in Lieut. Wardlaw Ramsay's collection, shot by Mr. Henry Whitely at Hakodadi, measure as follows:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. ♂. Hakodadi, May 4, 1865 ..... | 11·0 | 1·2 | 5·1 | 4·9 | 0·85 |
| *b*. ♀. Hakodadi, May 5, 1865 ..... | 10·4 | 1·1 | 5·0 | 4·8 | 0·85 |

The Red-eared Bulbul is found in Japan, where it is not uncommon, and also occurs on the mountains of Eastern China, though whether it is a migrant to the latter locality is not yet known. It likewise inhabits the island of Bonin.

| | | |
|---|---|---|
| *a*. ♂ ad. sk. | Yokohama, Feb. 21, 1870 (*Capt. Conrad*). | R. B. Sharpe, Esq. [P.]. |
| *b*, *c*. Ad. sk. | Japan. | J. R. Reeves, Esq. [P.]. |
| *d*. Ad. sk. | Japan. | C. Maries, Esq. [C.]. |
| *e*. Ad. st. | Japan. | Leiden Museum. |

## 8. Hypsipetes virescens.

Ixocincla virescens, *Blyth, J. A. S. Beng.* xiv. p. 575 (*nec* Ixus virescens, *Temm.*).

Hypsipetes virescens, *Blyth, J. A. S. Beng.* xv. pp. 51, 370; *id. Cat. B. Mus. As. Soc.* p. 207; *Bp. Consp.* i. p. 261.

Hypsipetes nicobariensis, *Moore in Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 257 (*nom. emend.*); *Gray, Hand-l. B.* i. p. 272, no. 3986; *Ball, Str. F.* 1873, p. 70; *Hume, Str. F.* 1874, p. 223.

*Adult male*. General colour above dark olive greenish, the least wing-coverts like the back; median and greater coverts and quills brown, externally edged with olive-greenish, the extreme margins of the feathers rather paler; tail-feathers brown, narrowly edged with the colour of the back; head and nape dusky brown, contrasting with the back and forming an indistinct cap, very faintly washed with olive; lores dusky; ear-coverts, sides of the neck, and hinder part of cheeks dusky ash-colour, with a very faint tinge of

olive; fore part of cheeks and throat white, slightly washed with yellow; remainder of under surface of body pale yellowish, the feathers being edged with this colour; sides of the upper breast dusky ash-colour, washed with olive-green; the flanks washed with olive; thighs light yellow; under wing-coverts and axillaries white, washed with pale yellow; quills dusky brown below, whitish along the edge of the inner web; "bill deep horny brown; lower mandible and edge of upper mandible dull yellow; legs and feet dark horny, greenish brown, or greenish plumbeous; irides brown" (*Hume*). Total length 8 inches, culmen 0·95, wing 3·9, tail 3·4, tarsus 0·75.

The sexes are alike, but specimens vary a good deal in tint. No perceptible difference in size of sexes (*Hume*).

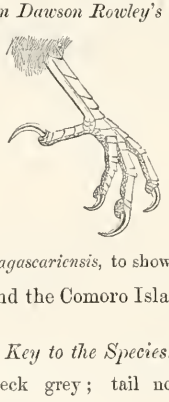
The Nicobar Bulbul inhabits the central islands of the Nicobar group.

| | | |
|---|---|---|
| *a*, *b*, *c*. Ad. sk. | Nicobar Islands. | India Museum. |
| *d*. ♂ ad. sk. | Nicobar Islands, Jan. 18, 1874 (*Capt. Wimberley*). | R. B. Sharpe, Esq. [P.]. |
| *e*. ♂ ad. sk. | Camorta Island, Dec. 1873 (*Capt. Wimberley*). | R. B. Sharpe, Esq. [P.]. |

## 5. IXOCINCLA. Type.

Ixocincla, *Blyth, J. A. S. B.* xiv. p. 575 (1845)..... I. olivacea.
Anepsia, *Reichenb. Syst. Av.* pl. liv. fig. 3.

Cf. *A. Newton, in Dawson Rowley's Orn. Misc.* ii. pp. 41–52.



Foot of *Ixocincla madagascariensis*, to show scutellations on tarsus.

*Range.* Madagascar and the Comoro Islands; Mauritius, Bourbon, and the Seychelles.

*Key to the Species.*

*a*. Throat and sides of neck grey; tail not tipped with white.
  *a'*. Back bluish grey: wing 4·1 inches..... *madagascariensis*, p. 45.
  *b'*. Back dark olive.
    *a''*. Under tail-coverts brown, with dull whitish edgings: wing 4·6 inches.... *borbonica*, p. 46.
    *b''*. Under tail-coverts yellowish white: wing 5·5 inches ..... *olivacea*, p. 46.
*b*. Throat and sides of neck olive yellowish; tail-feathers edged and tipped with white: wing 4·95 inches ..... *crassirostris*, p. 47.

### 1. Ixocincla madagascariensis.

Le Merle cendré de Madagascar, *Briss. Orn.* ii. p. 291, pl. xxv. fig. 2.

L'Ourovang ou Merle cendré de Madagascar, *Daubent. Pl. Enl.* iv. pl. 557, fig. 2; *Montb. Hist. Nat. Ois.* iii. p. 380.

Turdus madagascariensis, *P. L. S. Müller, Syst. Nat.*, Anhang, p. 139 (*ex Montbeillard*).

Cinereous Thrush, *Lath. Gen. Syn.* ii. part 1, p. 64.

Turdus urovang, *Gm. Syst. Nat.* i. p. 836; *Gray, Gen. B.* i. p. 219.

Turdus ourovang, *Lath. Ind. Orn.* i. p. 351.

Orova, *Syanz. Mém. Soc. Mus. Strasb.* iii. liv. 1, sig. MM. p. 26.

Hypsipetes ourovang, *J. Verr. Cat. Coll. Rivoli*, p. 6; *Hartl. Faun. Madag.* p. 44; *Roch & E. Newt. Ibis*, 1862, p. 273; *E. Newt. Ibis*, 1863, p. 347, pl. xiii. fig. 5 (egg); *Scl. P. Z. S.* 1863, p. 163; *id. Ibis*, 1864, p. 298; *A. Newt. P. Z. S.* 1865, p. 385; *Grand. Rev. et Mag. de Zool.* 1867, p. 359; *Sharpe, P. Z. S.* 1870, p. 385; *Hartl. Vög. Madag.* pp. 136, 409; *Shelley, P. Z. S.* 1879, p. 677.

Hypsipetes urovang, *Schl. & Poll. Faune Madag., Ois.* p. 296.

Hypsipetes madagascariensis, *Gray, Hand-l. B.* i. p. 272, no. 3993; *Sharpe, Cat. Afr. B.* p. 21; *id. P. Z. S.* 1871, p. 313; *A. Newton, in Rowley's Orn. Misc.* ii. p. 49, pl. xlii. fig. 1 (head).

*Adult male.* General colour above ashy grey, the lesser wing-coverts like the back; median and greater coverts as well as the quills brown, externally washed with ashy grey; tail-feathers brown, slightly shaded with ashy; crown of head and nape glossy greenish black, the head slightly crested and the feathers lanceolate in shape; an incomplete eyebrow of ashy grey, commencing at the base of the nostrils, but obsolete above the eye; lores as well as the eyelid, a spot at base of lower mandible, and another at base of chin black; remainder of under surface of body ashy grey, shading off slightly paler towards the centre of the abdomen, which is dull white; the flanks slightly washed with brown; thighs ashy, as also the under tail-coverts, which are mottled with whitish edgings; under wing-coverts and axillaries light ashy brown, washed with grey; quills brown below, ashy brown along the edge of the inner web; "beak orange; legs dusky yellow; iris bright red" (*E. Newton*). Total length 8·8 inches, culmen 0·9, wing 4·1, tail 3·7, tarsus 0·75.

The Madagascar Bulbul inhabits Madagascar and its islands (Mayotte &c.), as well as those of the Comoro group (Grand Comoro, Johanna Island &c.).

| | | |
|---|---|---|
| *a*. ♂ ad. sk. | Bay of Antouzil, N.E. Madagascar. | R. B. Sharpe, Esq. |
| *b*. Ad. sk. | N. Madagascar (*A. Crossley*). | R. B. Sharpe, Esq. |
| *c*. Ad. sk. | N. Madagascar (*A. Crossley*). | F. Godman & O. Salvin, Esqrs. [P.]. |
| *d*, *e*. Ad. sk. | Mohambo, Madagascar. | Mr. Gerrard [C.]. |
| *f*. Ad. st. | Mohilla, Comoro Islands. | Dr. Kirk [C.]. |
| *g*. Ad. sk. | Mohilla, Comoro Islands. | Dr. Kirk [C.]. |

### 2. Ixocincla borbonica.

Le Merle de l'isle de Bourbon, *Briss. Orn.* ii. p. 293, pl. xxiv. fig. 3.
Bourbon Thrush, *Lath. Gen. Syn.* ii. part 1, p. 73.
Turdus borbonicus, *Gm. Syst. Nat.* i. p. 821.
Hypsipetes borbonica, *Schl. & Poll. Faun. Madag.* p. 97; *A. Newton, Ibis*, 1876, p. 284; *Gray, Hand-l. B.* i. p. 273, no. 3994; *Hartl. Vög. Madag.* pp. 140, 409; *A. Newton, in Rowley's Orn. Misc.* ii. p. 50, pl. xlii. fig. 2 (head).

*Adult.* General colour above uniform dark olive-green, somewhat washed with grey on the hinder neck; lesser wing-coverts like the back; median and greater coverts and quills dark brown, slightly washed with olive-green, more conspicuous on the secondaries; rump somewhat washed with pale reddish brown; upper tail-coverts dark olive-green, like the back; tail-feathers dark brown, slightly washed with olive on the outer webs, and with an appearance of bands, the shafts whitish; on the lores a scarcely perceptible shade of grey; sides of face and ear-coverts, as well as the sides of the neck, throat, and breast, dark iron-grey, inclining to black at the base of the chin and lower mandible, and here and there faintly tinged with olive; lower breast and flanks dusky olive, the latter browner, as also the thighs; centre of abdomen yellowish white; under tail-coverts brown, edged with yellowish white; under wing-coverts and axillaries light brown; quills ashy brown below, greyish ash along the edge of the inner web; "bill orange; feet brownish yellow, the claws dusky; iris whitish" (*Hartlaub*). Total length 9 inches, culmen 0·9, wing 4·6, tail 4·1, tarsus 0·95.

The Bourbon Bulbul is confined to the island of Bourbon or Réunion.

*a*. Ad. sk. Réunion. Purchased.

### 3. Ixocincla olivacea.

Hypsipetes ganeesa?, *Jard. & Selby, Ill. Orn.* iii. pl. cxlviii. (*nec Sykes*).
Hypsipetes olivacea, *iid. op. cit.* iv. (new series), text to pl. ii.; *Gray, Gen. B.* i. p. 208; *Blyth, Cat. B. Mus. As. Soc.* p. 206; *Bp. Consp.* i. p. 261; *Hartl. Faun. Madag.* p. 44; *E. Newt. Ibis*, 1861, p. 271; *Schl. & Poll. Faun. Madag.* p. 98; *Gray, Hand-l. B.* i. p. 273, no. 3995; *Hartl. Vög. Madag.* pp. 138, 409; *A. Newton, in Rowley's Orn. Misc.* ii. p. 51, pl. xlii. fig. 3 (head).
Ixocincla olivacea, *Blyth, J. A. S. Beng.* xiv. p. 575.
Turdus atricilla, *Cuv. MS. in Mus. Paris*; *Pucher. Arch. Mus.* vii. p. 340.

*Adult.* General colour above ashy grey with a greenish gloss, the rump and upper tail-coverts somewhat washed with olive-brown; crown of head glossy black, base of forehead hoary grey; lores black; sides of face and throat hoary grey; sides of neck and hinder neck ashy grey; remainder of under surface of body dull ashy, the flanks earthy brown; lower abdomen and under

tail-coverts yellowish white, the latter slightly mottled with brown bases to the feathers; under wing-coverts light fawn-colour, many of the feathers edged with white; quills below ashy, whitish along the inner web; upper wing-coverts ashy grey like the back, the greater coverts brown, externally edged with ashy grey, the innermost entirely ashy grey; primary-coverts rather darker brown, washed with ashy; quills dark brown, slightly edged with ashy, the secondaries more broadly washed with the same colour as the back on their outer webs; tail-feathers brown, narrowly edged with the same colour as the back, the quills dark brown above, white below; "bill yellow, orange at the tips; feet pale; iris shining reddish yellow." Total length 10·5 inches, culmen 1·2, wing 5·5, tail 4·5, tarsus 1.

The Mauritian Bulbul is confined to the island of Mauritius.

| | | |
|---|---|---|
| *a*. Ad. st. | Mauritius. | Sir E. Belcher [P.]. |
| *b*. Ad. sk. | Mauritius. | John Gould, Esq. |
| *c*. Ad. sk. | [Mauritius.] | Zoological Society. |

### 4. Ixocincla crassirostris.

Hypsipetes crassirostris, *E. Newt. P. Z. S.* 1867, p. 334; *id. Ibis*, 1867, p. 344; *Gray, Hand-l. B.* i. p. 273, no. 3996; *A. Newt. in Rowley's Orn. Misc.* ii. p. 52, pl. xlii. figs. 4*a*, 4*b*; *Oustal. Bull. Soc. Philom.* (7) i. p. 101; *Hartl. Vög. Madag.* pp. 137, 409; *Oustal. Bull. Soc. Philom.* 1878, p. 172.

*Adult female* (Praslin, Lantz). General colour above dark olive-green, the upper surface somewhat mottled with the darker brown bases to the feathers; outer upper tail-coverts with pale yellowish margins; least wing-coverts like the back, the median and greater series brown, more or less distinctly washed with dull olive on the outer web; tail-feathers brown, edged along the inner web with dull white, which also extends a little way up the tip of the outer web; crown of head glossy black, forming a distinct cap; lores indistinctly washed with dull olive; sides of face and sides of neck dull olive, extending on to the sides of the neck; the cheeks and chin rather darker, and mottled with dusky bases to the feathers; throat and breast olive, shading off a little browner on the flanks; many of the feathers on the throat and breast tipped with a spot of olive-yellow; centre of the body yellowish white, as also the under tail-coverts, the latter with concealed brown bases; thighs dingy brown, edged with pale yellow; under wing-coverts and axillaries yellowish white, slightly mottled with ashy-brown bases; quills ashy brown below, lighter ashy along the edge of the inner web; "bill dull orange; feet dusky yellow, the claws black; irides dusky red" (*E. Newton*). Total length 9·3 inches, culmen 1·15, wing 4·95, tail 4, tarsus 1. (*Mus. G. E. Shelley.*)

*Immature*. Has the quills externally pale reddish brown, and a good many of the feathers of the back of a dull reddish-brown colour. (*Mus. G. E. Shelley.*)

The Short-billed Bulbul is found only in the Seychelles archipelago, where it occurs on the islands of Mahé, Silhouette, Praslin, and Marianne.

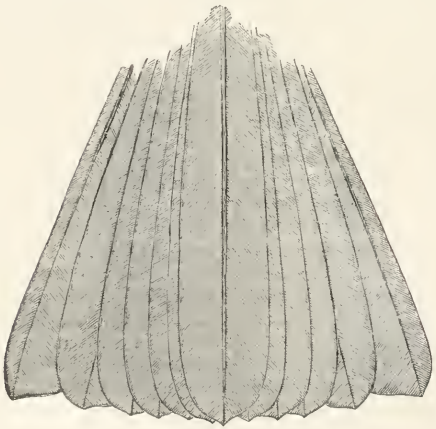
*a*. Ad., *b*. Juv. sk. Seychelles Islands. Rev. Canon Tristram.

## 6. HEMIXUS.

Type.
Hemixus, *Hodgs. J. A. S. B.* xiv. p. 572 ..... H. flavala.

Bill of *Hemixus flavala*, to show the great development of rictal bristles.

*Range*. Himalayas, and Burmese countries to Tenasserim; Hainan.



Tail of *Hemixus flavala*, to show its nearly square form.

*Key to the Species.*

*a*. Bright yellow edgings to the wing-coverts and quills, giving a golden-yellow appearance to the outer aspect of the wings.
*a'*. Back grey, as also the head; ear-coverts light brown.
*a''*. Back dull iron-grey; crown grey ..... *flavala*, p. 49.

*b''*. Back brownish grey; crown blackish brown ..... *hildebrandti*, p. 50.
*b'*. Back warm brown; crown rich warm brown *davisoni*, p. 51.
*c'*. Back chestnut, as also the ear-coverts; crown blackish brown..... *castanonotus*, p. 51.
*b*. No bright yellow on the wings, which are scarcely lighter than the back.
*d''*. No white streaks on the under surface .... *cinereus*, p. 52.
*e'*. Under surface of body streaked with white.
*c''*. Chin, throat, and breast ashy, obscurely streaked with white ..... *malaccensis*, p. 52.
*d''*. Throat whitish, washed with olive-yellow; fore neck and breast olive-green, broadly streaked with white ..... *virescens*, p. 53.

## 1. Hemixus flavala.

Hemixus flavala, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pls.190,191. fig. 2; *id. in Gray's Zool. Misc.* p. 38; *id. J. A. S. Beng.* xiv. p. 572; *Gray, Cat. Mamm. &c. Nepal pres. Hodgs., App.* p. 154; *Blyth, Cat. B. Mus. As. Soc.* p. 207; *Bp. Consp.* i. p. 261; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 250; *Jerd. B. Ind.* ii. p. 80; *Blyth, Ibis*, 1867, p. 7; *Bulger, Ibis*, 1869, p. 165; *Godw.-Austen, J. A. S. B.* xxxix. p. 106; *Blyth, B. Burm.* p. 133; *Hume, Str. F.* 1877, p. 111; *Anders. Zool. Exped. Yun-nan*, p. 657; *Hume, Str. F.* 1879, p. 98; *Scully, tom. cit.* p. 295.
Hemipus flavula, *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 90.
Pycnonotus flavulus, *Gray & Mitch. Gen. B.* i. p. 237, pl. 59.
Pycnonotus flavala, *Gray, Hand-l. B.* i. p. 270.

Head of *Hemixus flavala*, to show the pointed form of crest-plumes and the nuchal hairs.

*Adult.* General colour slaty grey, the feathers with a concealed subterminal shade of brown (generally in worn specimens); lesser, median, and inner greater wing-coverts grey like the back, but a little darker; bastard-wing and primary-coverts and quills dark brown, the outer greater coverts and the secondaries externally olive-yellow, forming a longitudinal band down the wing, the primaries only slightly edged with dull yellow on the outer web; tail-feathers dark brown, washed with olive-yellow near the base of the outer webs; head like the rest of the back, but crested, the feathers pointed; lores dusky; ear-coverts bronzy brown; feathers below the eye and cheeks black; throat, centre of the body, abdomen, and under tail-coverts white; chest and fore neck, as well as the sides of the body and thighs, ashy grey; under wing-coverts and axillaries

white, the latter washed with yellow; quills dusky brown below, whitish along the inner web; "bill black; feet dusky" (*J. Scully*); "irides dark brown" (*Jerdon*), "dark reddish brown" (*Scully*). Total length 7·2 inches, culmen 0·8, wing 3·85, tail 3·55, tarsus 0·75.

In Lieut. Wardlaw Ramsay's collection are some specimens from the Khasia hills, procured by Mr. A. W. Chennell, which appear to be in every way identical with Himalayan examples. The measurements of the sexes are as follows:—

| | | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|---|
| *a*. ♂. | Khasia hills ..... | 8·0 | 0·8 | 3·85 | 3·45 | 0·7 |
| *b*. ♀. | „ „ ..... | 7·0 | 0·75 | 3·65 | 3·35 | 0·7 |

In plumage the sexes appear to be similar.

The Brown-eared Bulbul inhabits the Himalayas at a height of from 3000 to 4000 feet, from between Simla and Mussoorie eastwards to Bootan and apparently to the head of the Assam valley. It is also found in the Khasia hills, and the Kakhyen hills in Burmah.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | N.W. Himalayas. | Capt. Stackhouse Pinwill [P.]. |
| *c–g*. Ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. (Types of species.) |
| *h*. Ad. sk. | Nepal (*B. H. Hodgson*). | India Museum. |
| *i*. Ad. sk. | Bootan (*Pemberton*). | India Museum. |
| *k*. Ad. sk. | Khasia hills, Nov. 1876 (*A. W. Chennell*). | Lieut. R. G. Wardlaw Ramsay. |
| *l*. Ad. sk. | Ponsee, Kakhyen hills, April 1868. | Dr. J. Anderson [C.]. |

### 2. Hemixus hildebrandti.

Hemixus hildebrandi, *Hume, Str. F.* 1874, p. 508; *Walden, in Blyth's B. Burm.* p. 133; *Hume, Str. F.* 1877, p. 111; *id. Str. F.* 1879, p. 98.
Hemixus brunneiceps, *Walden.*

*Adult female* (type of *Hemixus brunneiceps*, Walden: Karen hills, 2000 feet, Jan. 10, 1875; R. G. Wardlaw Ramsay). General colour above dark ashy grey, washed with brown on the back; upper tail-coverts and tail brown, the feathers edged with dull olive-yellow, the tail-feathers white along the inner web; wing-coverts blackish brown, the median series slightly, the greater coverts and quills broadly margined externally with yellow, imparting a yellow aspect to the wing, the primaries hoary grey towards the ends of the outer webs; crown of head and nape blackish brown; lores, feathers below the eye, and the fore part of the cheeks black; the hinder part of the cheeks grey like the sides of the neck; ear-coverts light earthy brown, with an ashy-brown lustre, contrasting with the adjacent parts; throat white, as also the abdomen, thighs, and under tail-coverts; fore neck, breast, and sides of body ashy grey; under wing-coverts and axillaries white, faintly washed with yellow; quills dusky brown below, white along the inner webs; "bill black; legs light brown or pinkish brown; iris lake or lake-brown" (*R. G. Wardlaw Ramsay, MS.*). Total length 7·5 inches, culmen 0·75, wing 3·9, tail 3·65, tarsus 0·6. (*Mus. Wardlaw Ramsay.*)

*Adult male.* Like the female in colour. Total length 8·5 inches, culmen 0·8, wing 4, tail 3·7, tarsus 0·65. (*Mus. Wardlaw Ramsay.*)

*Obs.* Mr. Hume states that *Hemixus brunneiceps* of Lord Walden is his *H. hildebranti*; and this appears indubitable; but it is equally unfortunate that the description of the former gentleman should give the head as "*black*," while Lord Walden's title implies that it is *brown*. As a matter of fact it is neither really black nor really brown, but is blackish brown in tint.

Hildebrandt's Brown-eared Bulbul occurs through the hills of Northern Tenasserim, from the Karen hills north of Tonghoo to close to Pahpoon.

### 3. Hemixus davisoni.

Hemixus davisoni, *Hume, Str. F.* 1877, p. 111; *Hume & Davis. Str. F.* 1878, p. 299; *Hume, Str. F.* 1879, p. 98.

The lores, feathers at base of lower mandible, under the eye, and under rather more than half the ear-coverts deep brown, almost black, but not so black as in *H. flavala* and *H. hildebrandti*; ear-coverts very pale satiny brown, a shade paler than in the other two species, I think; entire cap, back, wings, and tail a most beautiful rich full brown, deepest on head and mantle, slightly paler on nape, and with a decided grey tinge on the rump, forming a well-defined rump-band; the winglet and first six primaries and their greater coverts and the tail-feathers without a trace of any yellow margin; the later primaries, secondaries, and tertiaries, and their greater coverts narrowly margined with bright olive-yellow; these margins are about one third of the width of those on the wing of *H. flavala*, and one half the width of those of *H. hildebrandti*, giving even the closed wing a very different appearance. Chin and throat pure white, very conspicuously limited by the dark streak on either side, more so than in the other two species, the streak being somewhat longer; sides of neck, behind ear-coverts, upper breast, sides, and flanks a delicate ash-grey, rather a different shade to that of the other two species; middle of lower breast, abdomen, vent, and lower tail-coverts white, with a more or less faint ashy shade, chiefly in streaks and patches; wing-lining white, with a faint yellow tinge near the carpal joint, as in the other two species. Bill and claws black; legs and feet reddish brown; irides crimson-lake. Length 8·5 inches, bill from gape 0·95, wing 4·04, tail 3·6, tarsus 0·6. (*Hume.*)

Davison's Brown-eared Bulbul is known at present only from the Central-Tenasserim hill-regions.

### 4. Hemixus castanonotus.

Hemixus castanonotus, *Swinhoe, Ibis,* 1870, p. 251, pl. ix. fig. 1; *id. P. Z. S.* 1871, p. 369; *David & Oustalet, Ois. Chine,* p. 143.

*Adult.* General colour above dull chestnut-red, the upper tail-coverts brown, edged with dusky olive; tail-feathers also brown, margined with dusky olive near the base of the feathers; least and

median wing-coverts dull reddish brown ; greater coverts and quills dark brown, margined with yellowish olive, except on the primaries, which are edged with greyish white ; crown of head blackish brown, faintly tinged with reddish ; forehead, cheeks, and region of the eye dull chestnut ; ear-coverts brighter chestnut ; throat and centre of the body white, including the thighs and under tail-coverts ; fore neck and chest ashy grey, slightly washed with brown ; sides of body also ashy grey, faintly washed with olive ; under wing-coverts white, washed with yellow, the axillaries more strongly tinged with yellow ; quills ashy brown below, whitish along the edge of the inner web ; "bill black ; legs and claws brown ; iris blood-chestnut" (*R. Swinhoe*). Total length 8·1 inches, culmen 0·9, wing 4·15, tail 3·75, tarsus 0·75.

The Chestnut-backed Bulbul is confined to the island of Hainan.

| | | |
|---|---|---|
| *a*, Ad. sk. | Hainan, Feb. 1868. | R. Swinhoe, Esq. [C.]. |

### 5. Hemixus cinereus. (Plate II.)

Iole cinerea, *Blyth, J. A. S. Beng.* xiv. p. 573 (*ex A. Hay, MS.*) ; *id. Cat. B. Mus. As. Soc.* p. 339.
Trichophorus pulverulentus, *Bp. Consp.* i. p. 262 (*ex Müller, MS. in Mus. Lugd.*)*.
Hemixus cinerea, *Blyth, Ibis*, 1867, p. 7.
Criniger pulverulentus, *Gray, Hand-l. B.* i. p. 275, no. 4047.
Iole terricolor, *Hume, Str. F.* 1878, vol. vii. pp. 141, 461 ; *id. Str. F.* 1879, p. 62.

*Adult female.* General colour above dark ashy brown, the head much greyer than the back, the feathers being pointed with ashy margins ; wing-coverts and quills brown, edged with the same ashy grey as the back ; tail-feathers brown, with ashy-grey margins ; ear-coverts pale brown, as also the hinder part of the cheeks ; lores and fore part of cheeks dusky blackish ; throat white, as also the centre of the body, abdomen, thighs, and under tail-coverts ; fore neck, breast, and sides of body light ashy brown ; under wing-coverts and axillaries white, slightly tinged with yellow ; quills dark brown below, whitish along the inner web ; "bill black ; feet dusky ; iris red" (*A. R. Wallace, MS.*). Total length 7·5 inches, culmen 0·8, wing 3·8, tail 3·4, tarsus 0·65.

The Cinereous Bulbul appears to be a rare bird even in Malacca and Sumatra, where alone the bird is known from at present.

| | | |
|---|---|---|
| *a*. Ad. sk. | Sumatra. | Purchased. |
| *b*. ♀ ad. sk. | Mount Ophir, Malacca, 2000 feet. | A. R. Wallace, Esq. [C.]. |

### 6. Hemixus malaccensis.

Hypsipetes malaccensis, *Blyth, J. A. S. Beng.* xiv. p. 574, xv. p. 51 ; *Gray, Gen. B.* i. p. 238 ; *Blyth, Cat. B. Mus. As. Soc.* p. 207 ; *Bp. Consp.* i. p. 261 ; *Moore, P. Z. S.* 1854, p. 280 ; *Horsf. &*

* Type examined in the Leiden Museum.

*Moore, Cat. B. Mus. E.I. Co.* i. p. 256; *Gray, Hand-l. B.* i. p. 272, no. 3985; *Salvad. Ucc. Born.* p. 262; *Sharpe, Ibis*, 1877, p. 13; *Hume, Str. F.* 1878, p. 298; *Sharpe, Ibis*, 1879, p. 256; *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 221; *Hume, Str. F.* 1879, p. 98.

Trichophorus striolatus, *Bp. Consp.* i. p. 262 (*ex Müll. MS. in Mus. Lugd.*)*.

*Adult female* (Malacca; Wallace). General colour above olive-green, the wing-coverts like the back; primary and greater coverts, as well as the quills, dark brown, edged with the olive-green of the back; tail-feathers brown, margined with olive-green; sides of neck like the back; lores and feathers round the eye ashy grey; ear-coverts olive-green, streaked with dusky whitish; cheeks and under surface of body ashy, slightly washed with olive-green, and very distinctly streaked with white down the centre of the feathers; centre of abdomen and under tail-coverts white, the latter slightly tinged with yellow; the flanks and thighs washed with olive-brown; under wing-coverts and axillaries pale yellow; quills brown below, ashy white along the inner web. "Legs and feet pinkish brown to reddish brown; bill horny brown or very dark horny brown; in one the upper mandible was black, the lower reddish horny; irides mahogany-brown to litharge red" (*A. O. Hume*). Total length 8·5 inches, culmen 0·95, wing 4·1, tail 3·6, tarsus 0·75.

The Streaked Bulbul ranges from the hills south of Mergui in Tenasserim southwards to the Malayan peninsula, Sumatra, and Borneo.

| | | |
|---|---|---|
| *a, b.* Ad. sk. | Malacca (*Dr. Cantor*). | India Museum. |
| *c.* ♀ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *d, e.* Ad. sk. | Lumbidan. | Hugh Low, Esq. [C.]. |
| *f.* ♀ ad. sk. | Bintulu, W. Borneo. | Alfred Everett, Esq. [C.]. |

### 7. Hemixus virescens.

Ixos virescens, *Temm. Pl. Col.* ii. pl. 382. fig. 1.
Microscelis virescens, *Gray, Gen. B.* i. p. 235.
Brachypus virescens, *Bp. Consp.* i. p. 264.
Hypsipetes virescens, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 256; *Gray, Hand-l. B.* i. p. 272, no. 3984.
Criniger virescens, *Gray, Hand-l. B.* i. p. 275, no. 4051.

*Adult female.* Bright olive-greenish above, wing-coverts and outer edges of quills rather darker olive-green than the back, the inner secondaries almost entirely dull olive-green; tail-feathers blackish brown, margined with a shade of olive, the outer feathers tipped with whitish on the inner web, and for a little distance along the latter; head and nape ashy grey, slightly tinged with olive; lores, eyelid, and a faintly indicated eyebrow ashy whitish; ear-coverts dusky brown, plainly streaked with dull white; cheeks whitish, streaked with dusky olive, with which the feathers are edged; throat dull white, slightly washed with olive; fore neck and breast white,

* Type examined in the Leiden Museum.

the feathers edged with olive-green, producing a streaked appearance, the flanks also streaked in the same manner; lower abdomen, vent, and under tail-coverts pale yellow, white in the centre of the feathers; under wing-coverts and axillaries bright yellow; quills dusky brown below, yellow along the inner web; "iris dark red" (*H. O. Forbes*). Total length 7·5 inches, culmen 0·75, wing 3·35, tail 3·35, tarsus 0·7.

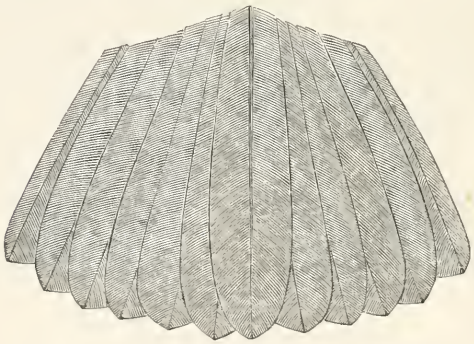
The Javan Streaked Bulbul appears to be confined to the island of Java.

| | | |
|---|---|---|
| *a*. Ad. sk. | West Java. | A. R. Wallace, Esq. [C.]. |
| *b*. ♀ ad. sk. | West Java. | A. R. Wallace, Esq. [C.]. |
| *c*. ♀ ad. sk. | Kosala, Bantam, Aug. 5, 1879 (*H. O. Forbes*). | F. Nicholson, Esq. [P.]. |

## 7. IOLE.

Type.

Iole, *Blyth, J. A. S. B.* xiii. p. 386 (1844) ..... I. olivacea.



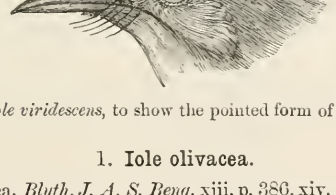
Tail of *Iole olivacea*, to show its rounded form.

*Range.* From Aracan through the Burmese countries and Malayan peninsula, to Java, Sumatra, Borneo, and the Philippine Islands.

*Key to the Species.*

*a*. Under surface without longitudinal white streaks.
  *a'*. Throat olive-yellow.
    *a''*. Head and back olive-brown of about the same shade, as also the upper tail-coverts and tail; wings externally brown ..... *olivacea*, p. 55.
    *b''*. Back dull olive-green, contrasting with the head, which is browner; upper tail-coverts and tail more reddish brown than the back; wings externally olive-greenish ..... *viridescens*, p. 56.
  *b'*. Throat rufescent or deep rufous.
    *c''*. Abdomen yellow ..... *everetti*, p. 57.
    *d''*. Abdomen white, slightly washed with olive-yellow ..... *rufigularis*, p. 57.

*b*. Under surface of body particoloured, streaked with white.
*c'*. Throat and chin rufous, streaked with white .. *philippensis*, p. 58.
*d'*. Chin and upper throat dusky, streaked with white; fore neck and breast brown or rufous, streaked with white.
*e''*. Olive-green above.
*a'''*. Ear-coverts rufous, like the breast and under surface generally ..... *macclellandi*, p. 59.
*b'''*. Ear-coverts light rufescent brown, with whitish shaft-lines: breast very pale ashy brown, streaked with whitish shaft-lines; abdomen white ..... *tickelli*, p. 60.
*f''*. Ashy brown above ..... *holti*, p. 61.



Head of *Iole viridescens*, to show the pointed form of the feathers.

### 1. Iole olivacea.

Iole olivacea, *Blyth, J. A. S. Beng.* xiii. p. 386, xiv. p. 573; *id. Cat. B. Mus. As. Soc.* p. 207; *Bp. Consp.* i. p. 261; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 254; *Salvad. Ucc. Born.* p. 210; *Sharpe, Ibis*, 1876, p. 40; *Tweedd. Ibis*, 1877, p. 307.
Criniger, sp., *Gray, Gen. B.* i. p. 236, sp. 10.
Criniger charlottæ, *Finsch, J. f. O.* 1867, p. 19; *Gray, Hand-l. B.* i. p. 274, no. 4033; *Giebel, Thes. Orn.* i. p. 811.
Trichophorus brunnescens, *S. Müll. in Mus. Lugd.**; *Finsch, t. c.* p. 19; *Blyth, Ibis*, 1870, p. 170.
Criniger olivaceus, *Gray, Hand-l. B.* i. p. 275, no. 4048 (*nec Swains.*).

*Adult male*. General colour above olive-brown, the wing-coverts like the back, the greater coverts brown, edged with the same olive-brown as the back; quills dark brown, externally olive-brown, the inner secondaries almost entirely of the latter colour; upper tail-coverts and tail clear brown, the feathers being edged with olive-brown; head rather clearer brown than the back, the feathers pointed; lores and feathers round the eye pale olive-yellowish; ear-coverts light olive-brown, a shade of which colour also pervades the sides of the head; cheeks pale brown, washed with olive; throat, centre of body, and abdomen pale yellowish white; fore neck, breast, sides of body, and thighs olive-greenish, the centre of the chest washed with yellow; under tail-coverts pale ochraceous buff, light brown in the centre of the feathers; under wing-coverts and axillaries pale yellow; quills brown below, ashy fulvous along the inner web, rufescent on the inner edge of the secondaries; "bill

* Type examined in the Leiden Museum.

black, the mandible dirty leaden; legs light warm brown; iris white" (*Alfred Everett*). Total length 7·2 inches, culmen 0·85, wing 3·5, tail 3, tarsus 0·75.

*Adult female.* A little smaller than the male, but similar in colour; "bill black; legs bluish slate-colour; iris brown" (*R. G. Wardlaw Ramsay, MS.*). Total length 7 inches, culmen 0·75, wing 3·15, tail 2·9, tarsus 0·7.

*Young.* Differs from the adult in being more rufous, especially on the wings, tail, and under tail-coverts, and in being more yellow underneath.

The Olive Bulbul occurs in the Malayan peninsula, Java, Sumatra, and Borneo. It has not yet been met with in Tenasserim.

In the British Museum is a specimen collected in the Philippine Islands by Mr. Cuming, which is either this species or a closely allied one; but the colouring of the feathers has so faded from exposure to the light that I cannot determine the bird for certain.

| | | |
|---|---|---|
| *a.* Ad. sk. | Malacca. | India Museum. |
| *b.* Ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *c.* ♂ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *d.* Ad. sk. | Malacca. | Eyton Collection. |
| *e.* ♀ ad.; *f.* ♀ juv. sk. | Sarawak, Borneo. | A. R. Wallace, Esq. [C.]. |
| *g.* ♂ ad. sk. | Jambusan, Sept. 13, 1874. | Alfred Everett, Esq. [C.]. |
| *h.* ♀ ad. sk. | Sarawak, Dec. 1878. | Henry Everett, Esq. [C.]. |
| *i, k.* ♂ ♀ ad. sk. | Paku, Sarawak, Dec. 1878. | Henry Everett, Esq. [C.]. |

## 2. Iole viridescens.

Iole virescens (*nec Temm.*), *Blyth, J. A. S. Beng.* xiv. p. 573; *id. Cat. B. Mus. As. Soc.* p. 207; *Bp. Consp.* i. p. 261; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 254.

Iole viridescens, *Blyth, Ibis*, 1867, p. 7; *id. & Wald. B. Burm.* p. 133; *Hume & Davison, Str. F.* 1878, pp. 315, 515; *Hume, Str. F.* 1879, p. 98.

Criniger viridescens, *Gray, Hand-l. B.* i. p. 275, no. 4049.

*Adult male.* General colour above dull olive: wing-coverts like the back; quills dark brown, externally a little brighter olive; upper tail-coverts and tail more rufescent brown, the latter with indistinct olive margins; head browner than the back, the feathers pointed; lores and an indistinct eyebrow olive-yellow; ear-coverts darker olive; cheeks and throat dull yellow, with a slight tinge of olive; fore neck, breast, and sides of body olivaceous, the centre of the body and abdomen pale yellow; thighs and under tail-coverts fawn-brown; under wing-coverts and axillaries pale yellow; quills dusky brown below, buffy whitish along the inner web. "Legs and feet pale pinkish brown or reddish fleshy, but the feet slightly darker than the tarsi; upper mandible pale reddish horny to dark horny brown; lower mandible pale fleshy brown to pale bluish pink or dirty plumbeous blue; eyelids dark blackish grey; irides excessively variable, probably according to age, dark slaty,

clear grey, salmon-pink, pale golden brown" (*Hume*). Total length 6·2 inches, culmen 0·7, wing 3·05, tail 2·8, tarsus 0·65.

*Young female.* Differs from the adult in the mixture of reddish feathers on the back, and especially on the wings, the wing-coverts, quills, and tail-feathers being margined with rust-colour; under tail-coverts more rusty than in the adults.

Mr. Hume gives the following measurements:—"Length 6·8–7·25 inches, tail 2·82–3·25, wing 3–3·25, tarsus 0·62–0·68, culmen 0·7–0·8."

The Small Olive Bulbul ranges from Aracan and the Khasia and Tipperah hills, through Burmah to the Tenasserim provinces.

| | | |
|---|---|---|
| *a.* Ad. sk. | Aracan. | India Museum. |
| *b.* Ad. sk. | Tonghoo. | Lieut. R. G. Wardlaw Ramsay. |
| *c.* ♀ ad. sk. | Karen hills, Jan. 8, 1875 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |
| *d.* Ad. sk. | Tenasserim (*Dr. Helfer*). | India Museum. |
| *e.* ♂ ad. sk. | Malewoon, Tenasserim, Jan. 15, 1875 (*W. Davison*). | A. O. Hume, Esq. |
| *f.* ♀ juv. sk. | Foot of Mwalabo, British Burmah, April 5, 1878 (*W. Davison*). | A. O. Hume, Esq. |

### 3. Iole everetti.

Criniger everetti, *Tweedd. Ann. & Mag. Nat. Hist.* (4) xx. p. 535; *id. P. Z. S.* 1877, p. 827, pl. lxxxiv., et 1878, p. 110.

*Adult male.* General colour above dull olive-yellow, the feathers of the head a little brighter and pointed; wing-coverts like the back; quills dusky brown, externally olive-yellow, with a narrow outer margin of brighter yellow; tail-feathers olive, narrowly edged externally with olive-yellow; lores and sides of face pale rufescent brown, the ring round the eye olive-yellow, as also the base of the cheeks, the lores likewise washed with the same colour; throat and fore neck light rufescent brown, the chin yellow; remainder of the under surface pale bright yellow, slightly rufescent on the chest, the flanks washed with olive; under wing-coverts and axillaries bright yellow; quills dusky brown below, yellow along the inner web; "bill black, mandible greyish; legs grey, claws dark grey; iris dark burnt sienna-brown" (*A. Everett*). Total length 9·9 inches, culmen 1·1, wing 4·5, tail 3·9, tarsus 0 85.

Everett's Bulbul, as far as is yet known, inhabits the islands of Mindanao and Dinagat, in the Philippine archipelago.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Surigao, May 1877. | Alfred Everett, Esq. [C.]. |

### 4. Iole rufigularis. (Plate III.)

Hypsipetes rufigularis, *Sharpe, Trans. Linn. Soc. new series, Zool.* i. p. 335; *Tweedd. P. Z. S.* 1877, p. 546, et 1878, p. 949.

*Adult male* (type of species). General colour above olivaceous

brown, with slight greyish margins to the feathers; wings resembling the back, some of the outer median coverts tipped with fulvous; quills brown externally, margined with olivaceous; upper tail-coverts ashy brown; tail-feathers dark brown, very narrowly margined on the outer web with olivaceous; head dark ashy grey, the feathers brown in the centre and lanceolate, with ashy-grey margins; lores, feathers over the eye, and sides of face dull brown, the feathers at the base of the lower mandible ochraceous; entire throat dull tawny rufous, browner on the jugular region; rest of under surface white, the feathers slightly edged with pale yellow, producing a streaked appearance, the flanks washed with brown; under wing-coverts white, slightly washed with yellow; bill and legs blackish brown; iris cherry-red. Total length 9·8 inches, culmen 1·1, wing 4·45, tail 4·25, tarsus 0·85. (*Coll. J. B. Steere.*)

*Adult female.* Similar to the male in colour, but a little duller. Total length 8·7 inches, culmen 1, wing 4·5, tail 4, tarsus 0·8.

The Rufous-throated Bulbul has, as yet, only been met with in the islands of Mindanao and Malamaui, in the Philippine archipelago.

| | | |
|---|---|---|
| *a.* Ad. sk. | Malamaui Island, Philippine archipelago. | Prof. J. B. Steere [C.]. |
| *b, c.* ♂ . *d.* ♀ ad. sk. | Pasananca, prov. of Zamboanga, Mindanao (*J. Murray*). | Voyage of H.M.S. 'Challenger.' |

### 5. Iole philippensis.

La petite Grive des Philippines, *Montb. Hist. Nat. Ois.* iii. p. 316.
Philippine Thrush, *Lath. Gen. Syn.* ii. part 1, p. 38.
Turdus philippensis, *Gm. Syst. Nat.* i. p. 814 (*ex Montb.*).
Galgulus philippensis, *Kittl. Kupf. Vög.* p. 8, Taf. 12. fig. 2.
Hypsipetes philippensis, *Strickl. Ann. Nat. Hist.* xiii. p. 413; *Gray, Gen. B.* i. p. 238; *Bp. Consp.* i. p. 261; *von Martens, J. f. O.* 1866, p. 13; *Walden, Trans. Zool. Soc.* ix. p. 192; *Sharpe, Trans. Linn. Soc. new series, Zool.* i. p. 335; *Tweedd. P. Z. S.* 1877, pp. 546, 696, 761, 827, et 1878, pp. 285, 342, 381.
Philedon gularis, *Cuv. Mus. Paris*; *Pucher. Arch. Mus.* vii. p. 344, pl. 18.
Microscelis philippensis, *Gray, Gen. B.* i. p. 235; *Bp. Consp.* i. p. 263; *von Martens, J. f. O.* 1866, p. 13; *Gray, Hand-l. B.* i. p. 268, no. 3917.
Hypsipetes gularis, *Gray, Hand-l. B.* i. p. 272, no. 3992.

*Adult male.* Above olivaceous brown, more olivaceous on the upper tail-coverts; wings dark brown, with slight olivaceous edgings to the wing-coverts and quills; upper tail-coverts and tail dark brown, the latter narrowly edged with olivaceous; head dark ashy grey, the feathers lanceolate, with dark brown centres; lores, feathers over the eye, and sides of face rufous-brown, mesially streaked with tiny lines of rufous-buff; throat tawny rufous, with a narrow shaft-streak of white; the rest of the under surface white, strongly washed with olive-greenish, all the feathers with white shafts, the sides of the body uniform olive-brown; thighs dull white, washed with yellow, and brown at the base; under tail-coverts white, with a slight yellowish wash; axillaries white, washed with yellow, the under wing-

coverts pale rufous-brown; bill and legs blackish brown; iris reddish hazel: "bill black; legs dark sepia-brown; iris burnt sienna-brown" (*A. Everett*). Total length 9 inches, culmen 1·05, wing 4, tail 3·9, tarsus 0·85.

*Adult female* (San Mateo, Feb. 1877; A. Everett). Similar to the male in plumage, but rather smaller. "Soft parts as in male, excepting the legs, which are dark plumbeous" (*A. Everett*). Total length 7·5 inches, culmen 0·9, wing 3·55, tail 3·4, tarsus 0·75. (*Coll. R. G. Wardlaw Ramsay.*)

The Philippine Streaked Bulbul appears to be widely spread over the islands of the Philippine archipelago, where it has been procured in Luzon, Guimaras, Zebu, Negros, Leyte, Panaon, and Mindanao.

| | | |
|---|---|---|
| *a*. Ad. sk. | Philippine Islands. | Baron Laugier de Chartrouse. |
| *b*. ♂ ad. sk. | Luzon (*Dr. A. B. Meyer*). | Lieut. R. G. Wardlaw Ramsay. |
| *c*. ♂ ad. sk. | Zebu (*J. Murray*). | Voyage of H.M.S. 'Challenger.' |

### 6. Iole macclellandi.

Hypsipetes maclellandi, *Horsf. P. Z. S.* 1839, p. 159; *Blyth, J. A. S. Beng.* xi. p. 186, xiv. p. 574; *Gray, Gen. B.* i. p. 238; *Blyth, Cat. B. Mus. As. Soc.* p. 207; *Bp. Consp.* i. p. 261; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 256; *Jerd. B. Ind.* ii. p. 79; *Gray, Hand-l. B.* i. p. 272, no. 3082; *Godw.-Aust. J. A. S. B.* xxxix. 1870, p. 106; *Hume, Nests and Eggs Ind. B.* p. 281; *Blyth & Wald. B. Burm.* p. 133 (pt.); *Hume, Str. F.* 1878, p. 298, 1879, p. 98; *Scully, Str. F.* 1879, p. 294.

Hypsipetes viridis, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pls. 193, 194. fig. 1; *id. in Gray's Zool. Misc.* p. 83; *Gray, Cat. Mamm. &c. Nepal pres. Hodgson*, p. 88.

*Adult* (type of species). General colour above dull olive-green, with faintly indicated light shaft-stripes; wing-coverts like the back; quills blackish, externally olive-green like the back, the inner secondaries being entirely of the same colour as the latter; tail-feathers olive-green, the shafts blackish above, yellow below; crown of head brown, the feathers pointed, so as to form a crest, the shafts conspicuously buffy white; lores, feathers around and below the eye, cheeks, and throat dull white, the feathers lanceolate and mottled, with greyish bases; ear-coverts light chestnut, extending onto the sides of the neck; lower throat and breast light chestnut or cinnamon, fading off paler on the belly, the flanks washed with olive; all the feathers of the lower throat and breast striped with mesial shaft-lines of white: thighs and under tail-coverts olive-yellow; under wing-coverts olive-yellow, the axillaries with a saffron tint; quills brown below, yellowish buff along the inner webs; "bill blackish brown, lower mandible livid grey, horny below; feet fleshy brown; claws brown, horny; irides brownish red or dark red" (*J. Scully*). Total length 9 inches, culmen 1, wing 4·3, tail 4·3, tarsus 0·8.

*Young male.* Rather duller than the adult, and washed with rufous on the scapulars, wing-coverts, and upper tail-coverts; under surface of body light chestnut, the abdomen whitish, washed with dingy

olive-yellow; lores, chin, and a moustachial line on each side of the throat dull white, mottled with grey bases.

The Rufous-bellied Bulbul inhabits the hill-ranges of the Himalayas, ranging eastwards into Assam, the Khasia, Aracan, and Tipperah hills.

| | | |
|---|---|---|
| *a.* Ad. sk. | Assam (*McClelland*). | India Museum. (Type of species.) |
| *b.* Ad. sk. | Bootan (*Pemberton*). | India Museum. |
| *c–e.* Ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. (Types of *Hypsipetes viridis*.) |
| *f.* Ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *g–i.* Ad. sk. | Nepal (*B. H. Hodgson*). | India Museum. |
| *k, l.* Ad. sk. | N.W. Himalayas. | Capt. Stackhouse Pinwill [P.]. |
| *m.* ♂ juv. sk. | N.W. Himalayas. | Capt. Stackhouse Pinwill [P.]. |

### 7. Iole tickelli.

Hypsipetes tickelli, *Blyth, J. A. S. Beng.* xxiv. p. 275; *Gray, Hand-l. B.* i. p. 272, no. 3988; *Blyth & Wald. B. Burm.* p. 133; *Hume, Str. F.* 1878, p. 296, 1879, p. 98.

*Adult male.* General colour above olive-green, a little duller on the mantle, which has indistinct pale shaft-lines to the feathers: wing-coverts like the back, the quills blackish brown, externally olive-yellow, a little brighter than the back; tail-feathers olive-yellow; head and nape earthy brown, streaked with narrow shaft-lines of dull white; lores and feathers below the eye hoary white; ear-coverts pale brownish red, streaked with white shaft-lines, the hinder cheeks resembling the ear-coverts; throat ashy, broadly streaked with white, the feathers being white with ashy margins; abdomen and centre of body white; fore neck and breast pale earthy brown, with white shaft-lines to the feathers; sides of body and thighs faintly washed with olive; under tail-coverts pale olive-yellow; under wing-coverts and axillaries pale yellow; quills olive-brown below, yellowish buff along the inner webs; "bill and legs dark brown; iris brown" (*Wardlaw Ramsay, MS.*). Total length 8·5 inches, culmen 0·95, wing 3·95, tail 3·8, tarsus 0·65. (*Mus. R. G. Wardlaw Ramsay.*)

*Adult female.* Similar to the male in colour. Total length 8·5 inches, culmen 0·95, wing 3·95, tail 4, tarsus 0·65.

Mr. Hume, describing a series from Tenasserim, writes as follows:—"The colours of the soft parts varied a good deal in different specimens: legs and feet fleshy pink, dark fleshy pink, light purplish brown, pale pinkish brown, or pale reddish brown; bill black, horny black, or dark horny brown; irides wood-brown, deep red-brown, light red, or crimson." (*Stray Feathers*, 1878, p. 297.)

Tickell's Bulbul replaces the foregoing species in the Burmese and Tenasserim hills, ranging as far south as Tavoy.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Karen Nee, 3500 feet, March 11, 1874 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |
| *b.* ♀ ad. sk. | Karen Nee, 4000 feet, March 13, 1874 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |

### 8. Iole holti.

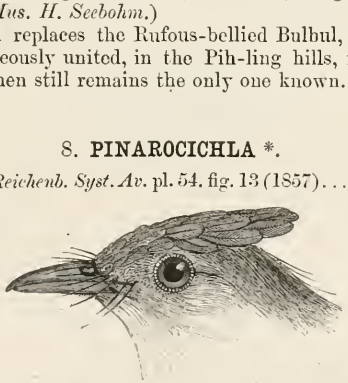
Hypsipetes holti, *Swinhoe, Ibis*, 1861, pp. 266, 409; *id. P. Z. S.* 1863, p. 277.
Hypsipetes holki, *Gray, Hand-l. B.* i. p. 272, no. 3990 (*lapsu*).
Hypsipetes maclellandi (*nec Horsf.*), *Swinh. P. Z. S.* 1871, p. 369; *David & Oustalet, Ois. Chine*, p. 135.

*Adult male* (Pih-ling Hills, near Foochow, May 29, 1857; R. Swinhoe: type of species). General colour above ashy brown, with lighter brown shaft-streaks to the feathers; scapulars like the back; wings olive-green, contrasting with the back, the quills dusky brown, externally olive-green, the secondaries entirely of the latter colour; upper tail-coverts and tail-feathers olive-green, the shafts of the latter reddish brown above, yellow beneath; head chestnut-brown, the feathers lanceolate in shape, with dull whitish shaft-streaks; ear-coverts light cinnamon-red; cheeks and lores, as well as the throat, dull white, the feathers lanceolate in shape, and mottled with light ashy bases; fore neck light rufous, with pale centres to the feathers, fading into buff on the rest of the under surface, the sides being ashy brown slightly tinged with rufous, the thighs more distinctly rufescent; under tail-coverts olive-yellow; under wing-coverts and axillaries reddish buff; quills brown below, olive-yellow along the inner webs; "bill blackish brown; legs and claws brown" (*Swinhoe*). Total length 8 inches, culmen 1, wing 4·1, tail 3·95, tarsus 0·65. (*Mus. H. Seebohm.*)

Holt's Bulbul replaces the Rufous-bellied Bulbul, with which it has been erroneously united, in the Pih-ling hills, near Foochow. The type specimen still remains the only one known.

## 8. PINAROCICHLA *.

| | Type. |
|---|---|
| ? Euptilosus, *Reichenb. Syst. Av.* pl. 54. fig. 13 (1857). . . . | ? P. euptilosa. |



Head of *Pinarocichla euptilosa*, to show peculiar crest.

*Range.* Malacca, Java, Sumatra, and Borneo.

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* There can be little doubt that Reichenbach's generic name *Euptilosus* is founded on the *Brachypus euptilosus*, and the species might therefore be called *Euptilosus tristis* (Blyth). I consider, however, that a protest should be made against the adoption of specific names as genera; and when, as in the present instance, the bird is well characterized and named by the original describers, the specific name first given should on no account be set aside. If Reichen-

### 1. Pinarocichla euptilosa.

Brachypus euptilosus, *Jard. & Selby, Ill. Orn.* iv. (new ser.) pl. iii.; *Tweedd. Ibis*, 1877, p. 306; *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 219.
Brachypus entylotus, *Eyton, P. Z. S.* 1839, p. 103.
Ixus tympanistrigus *, *S. Müll. Tidschr. Nederl. Indië*, 1835, p. 353.
Brachypodius euptilosus, *Blyth, J. A. S. B.* xiv. p. 576.
Brachypodius tristis, *Blyth, J. A. S. B.* xiv. p. 577.
Pycnonotus euptilosus, *Gray, Gen. B.* i. p. 237.
Brachypus entilosus, *Blyth, Cat. B. Mus. As. Soc.* p. 339.
Brachypus tympanistrigus, *Bp. Consp.* i. p. 264.
Microtarsus cantori, *Moore, P. Z. S.* 1854, p. 279; *id. in Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. *App.* p. 409.
Trichophorus susanii, *Bp. Notes Coll. Delattre, in Comptes Rendus*, 1854, p. 59 (*nec Müll. in Mus. Lugd.*) †.
Pycnonotus susanii, *Gray, Hand-l. B.* i. p. 270, no. 3945.
Pycnonotus euptilosus, *Gray, Hand-l. B.* i. p. 271, no. 3959.
Criniger susanii, *Giebel, Orn. Thes.* p. 813; *Salvad. Ucc. Born.* p. 207.
Poliolophus euptilosus, *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 219.
Criniger tristis, *Hume & Davison, Str. F.* 1878, p. 303.
Euptilosus euptilosus, *Hume, Str. F.* 1879, p. 62.

*Adult male.* General colour above brown, washed with olive on the mantle and scapulars; wing-coverts reddish brown, the least series washed with olive; quills dark brown, externally reddish brown; lower back covered with dense plumes, which are black with brown ends, producing a somewhat mottled appearance; on each side of the rump a large tuft of long feathers springing from the sides of the back, black with pale yellow ends; upper tail-coverts rufous-brown; tail slightly darker rufous-brown, all but the four centre feathers tipped with white; crown of head dark greyish brown, deeper on the occiput, where there is a short crest; lores and feathers round the eye dusky ash-colour; ear-coverts light ashy brown; cheeks ashy whitish; throat dull white; fore neck, chest, and sides of body very pale ashy grey, the flanks rather browner; centre of the body, abdomen, vent, thighs, and under tail-coverts yellowish white, the latter slightly tinged with brown; under wing-coverts and axillaries yellowish white, the edge of the wing pale yellow; quills dusky brown below, pale ashy fulvous along the edge of the inner web; bill black (*Wallace*), dark brown (*A. Everett*); feet lead-colour (*Wallace*), brown (*A. Everett*); iris red (*Wallace*), pale reddish (*A. Everett*), crimson (*H. Everett*). Total length 7·7 inches, culmen 0·75, wing 3·6, tail 3·4, tarsus 0·75.

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bach's genus *Euptilosus* (published without any description or identification of type), be allowed, the cacophonous name of the bird will be *Euptilosus euptilosus*. But as these double names should not, in my opinion, be used excepting under pressure, such as in restoring a Linnean specific name, I have proposed a new genus, *Pinarocichla*.

* Type in Leiden Museum examined.

† The specimens marked as *T. susanii* in the Leiden Museum are *Pycnonotus pusillus* of Salvadori. There can, however, be no doubt that the actual type of Bonaparte's supposed species "in Mus. Verr." is now in the British Museum, which purchased two specimens from the Maison Verreaux in 1852.

The *adult female* is probably like the male; but neither the British Museum nor the Leiden Museum contains an identified specimen of this sex.

*Young female.* Distinguished from the old birds by its browner bill, generally paler coloration, less distinct white tipping to the tail-feathers and the long flank feathers.

The Crested Brown Bulbul is found in Java, Sumatra, and Borneo, and ranges up the Malayan peninsula into Southern Tenasserim, where it has been met with in the neighbourhood of the Pakchan.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *b.* Ad. sk. | Malacca (*Dr. Cantor*). | India Museum. (Type of *Microtarsus cantori*, Moore.) |
| *c.* ♀ juv. sk. | Sumatra. | M. Verreaux. |
| *d.* Ad. sk. | Java. | Purchased. |
| *e.* Ad. sk. | Borneo. | M. Verreaux. (Type of *Trichophorus susanii*, Bp.) |
| *f.* Ad. sk. | Jambusan, N.W. Borneo. | Alfred Everett, Esq. [C.]. |
| *g.* Ad. sk. | Bintulu, N.W. Borneo. | Alfred Everett, Esq. [C.]. |
| *h.* ♂ ad. sk. | Sibu, Sarawak, July 10, 1874. | Alfred Everett, Esq. [C.]. |
| *i.* ♂ ad. sk. | Paku, Sarawak, Dec. 1878. | Henry Everett, Esq. [C.]. |

## 9. POLIOLOPHUS.

Poliolophus, *Sharpe, Trans. Linn. Soc. new series, Zool.* i. p. 334 (1876) ..... Type. P. urostictus.

Head of *Poliolophus urostictus*, to show the eye-wattle.

*Range.* Confined to the Philippine Islands.

### 1. Poliolophus urostictus.

Brachypus urostictus, *Salvad. Atti R. Accad. Torino*, v. p. 509.
Ixus? urostictus, *Wald. Trans. Zool. Soc.* ix. p. 191, pl. xxxii, fig. 2.
Poliolophus urostictus, *Sharpe, Trans. Linn. Soc. new series, Zool.* i. p. 334; *Tweedd. P. Z. S.* 1877, p. 827, 1878, pp. 110, 380, 949.

*Adult.* General colour above olive-greenish; the lower part of the back barred with black; the sides of the rump also barred with black, the feathers broadly tipped with white; upper tail-coverts slightly rufescent; tail dark brown, slightly washed with olive, subterminally blackish, forming an indistinct bar before the white tips to the feathers, which are very distinct; head ashy brown, much crested; sides of the face darker brown, faintly washed with

olive; throat and chest ashy, the latter slightly washed with olive, and inclining to dark brown on the sides of the neck; rest of the under surface white, faintly streaked with yellow on the breast, some of the feathers being edged with this colour; sides of the body olive-brown; thighs white; under wing-coverts pale sulphur-yellow; wings above brown, the least coverts olive like the back; all the other coverts and the quills externally washed with olive-brown; round the eye a yellow wattle; bill blackish; feet blackish brown; "iris hazel" (*Steere*): "orbital ring lemon-yellow; bill black; legs dark grey; iris dark brown" (*A. Everett*). Total length 6·9 inches, culmen 1·15, wing 3·05, tail 3·2, tarsus 0·65. (*Coll. J. B. Steere.*)

In Lieut. Wardlaw Ramsay's collection is a fine series of this species from the Philippines. The sexes measure as follows:—

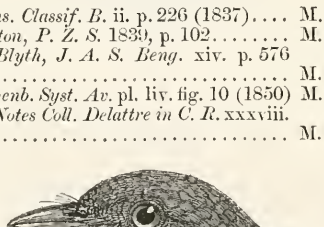
| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. ♂. Zamboanga (*A. Everett*) ..... | 7·0 | 0·6 | 3·1 | 3·0 | 0·7 |
| *b*. ♂. Surigao (*A. Everett*) | 6·7 | 0·6 | 3·05 | 3 0 | 0·65 |
| *c*. ♀. Surigao (*A. Everett*) | 6·7 | 0·6 | 2·85 | 2·9 | 0·6 |

The Wattled Brown Bulbul is an inhabitant of the following islands of the Philippine archipelago—Luzon, Negros, Panaon, Dinagat, and Mindanao.

| | | |
|---|---|---|
| *a*. Ad. st. | Philippine Islands. | Hugh Cuming, Esq. [C.]. |
| *b*. ♀ ad. sk. | Surigao, May 1877 (*A. Everett*). | Lieut. R. G. Wardlaw Ramsay. |

## 10. MICROPUS.

| | Type. |
|---|---|
| Micropus, *Swains. Classif. B.* ii. p. 226 (1837).... | M. chalcocephalus. |
| Microtarsus, *Eyton, P. Z. S.* 1839, p. 102..... | M. melanoleucus. |
| Brachypodius, *Blyth, J. A. S. Beng.* xiv. p. 576 (1845) ..... | M. melanocephalus. |
| Prosecusa, *Reichenb. Syst. Av.* pl. liv. fig. 10 (1850) | M. chalcocephalus. |
| Ixocherus, *Bp. Notes Coll. Delattre in C. R.* xxxviii. 1854, p. 58 ..... | M. melanoleucus. |



Head of *Micropus melanocephalus*.

*Range.* Southern part of the Indian peninsula; Burmese countries and Malayan peninsula; Java, Sumatra, Borneo, Palawan.

*Key to the Species.*

*a.* Centre tail-feathers with a subterminal black band.
  *a'.* Upper tail-coverts yellow.
    *a''.* Mantle and breast olive-yellow or yellowish green.
      *a'''.* Ear-coverts and cheeks metallic black, like the throat and crown ..... *melanocephalus*, p. 65.
      *b'''.* Ear-coverts and cheeks dark olive-green; throat metallic black; no cap; the head a little more dingy than the back and glossed with metallic purple. *fusciflavescens*, p. 67.
    *b''.* Mantle and breast light bluish grey .... *cinereiventris*, p. 67.
  *b'.* Upper tail-coverts light grey; upper and under surface grey; head all round metallic black..... *chalcocephalus*, p. 69.
*b.* Centre tail-feathers grey, with no subterminal band; upper tail-coverts grey; no distinct cap; hind head grey ..... *phæocephalus*, p. 68.
*c.* Centre tail-feathers uniform blackish, like the rest of the body; a white shoulder-spot; axillaries white ..... *melanoleucus*, p. 69.

## 1. Micropus melanocephalus.

Black-headed Shrike, *Lath. Gen. Syn.* i. pt. i. p. 165, pl. vi.
Lanius melanocephalus, *Gm. Syst. Nat.* i. p. 309.
Turdus melanocephalus, *Raffl. Trans. Linn. Soc.* xiii. p. 310.
Turdus atriceps, *Temm. Pl. Col.* 147.
Ixos atriceps, *Temm. Tabl. Méth. Pl. Col.* p. 15.
Brachypodius melanocephalus, *Blyth, J. A. S. Beng.* xiv. p. 576; *id. Cat. B. Mus. As. Soc.* p. 211; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 248; *Moore, P. Z. S.* 1854, p. 278; *Salvad. Ucc. Born.* p. 201; *Blyth & Wald. B. Burm.* p. 136; *Armstr. S. F.* 1876, p. 324; *Tweedd. Ibis*, 1877, p. 307; *id. P. Z. S.* 1878, p. 618; *Hume, Str. F.* 1878, p. 318, 1879, p. 98; *Sharpe, P. Z. S.* 1879, p. 339; *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 221.
Ixos metallicus, *Eyton, Ann. Nat. Hist.* xvi. p. 228.
Pycnonotus melanocephalus, *Strickl. P. Z. S.* 1846, p. 101; *Gray, Gen. B.* i. p. 237; *id. Hand-l. B.* i. p. 270, no. 3972.
Pycnonotus metallicus, *Gray, Gen. B.* i. p. 237; *id. Hand-l. B.* i. p. 271, no. 3973.
Brachypus melanocephalus, *Bp. Consp.* i. p. 264.
Prosecusa melanocephala, *Cab. Mus. Hein.* Th. i. p. 110.
Ixus melanocephalus, *Schl. Handl. Dierk.* i. p. 272.
Brachypodius immaculatus, *Sharpe, Ibis*, 1876, p. 39, 1877, p. 14.

*Adult male.* General colour above olive-yellow, rather brighter towards the lower back; the feathers of the rump with black bases, producing a somewhat barred appearance; upper tail-coverts bright yellow; tail-feathers yellow, brilliant yellow at the tips, with a subterminal band of black, somewhat less distinct on the outer ones; least wing-coverts like the back, the median and greater series brighter yellow, especially on the margins of the latter; primary-coverts and quills black, the former with narrow yellowish edgings,

as also the secondaries, the innermost very broadly margined and tipped with bright yellow; crown of head, entire sides of head, and entire throat metallic green with a purple shade; remainder of under surface olive-yellow, bright yellow in the centre of the body, abdomen, and under tail-coverts; under wing-coverts and axillaries bright yellow; quills dusky brown below, whitish along the edge of the inner web; "bill black; legs dark brown; iris pale cobalt" (*R. G. Wardlaw Ramsay, MS.*). Total length 6·3 inches, culmen 0·6, wing 3·05, tail 2·65, tarsus 0·55.

*Adult female.* Similar to the male in plumage. Legs plumbeous or dark plumbeous, the bill black, the inside of the mouth pale plumbeous blue, the irides clear pale blue. (*Hume.*) Total length 6·7 inches, culmen 0·6, wing 3·05, tail 2·75, tarsus 0·5. (*Mus. R. G. Wardlaw Ramsay.*)

The Black-headed Bulbul ranges from Dacca and Tipperah, through Tenasserim and the Malay peninsula, to Java, Sumatra, Borneo, and the Philippine island of Palawan. It is not known to be migratory.

| | | |
|---|---|---|
| *a.* Ad. sk. | Tenasserim. | J. C. D. Packman, Esq. [P.]. |
| *b, c, d.* Ad. sk. | Malacca (*Dr. Cantor*). | India Museum. |
| *e.* ♂ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *f.* Ad. sk. | Malacca. | India Museum. |
| *g.* Ad. sk. | Malacca. | W. Harvey, Esq. [P.]. |
| *h.* Ad. sk. | Malacca. | Eyton Collection. (Type of *Ixos metallicus*, Eyton.) |
| *i.* Var. alb. sk. | Sumatra. | Purchased. |
| *k.* Ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *l.* Ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. (Type of *Brachypodius immaculatus*, Sharpe.) |
| *m, n.* Ad. sk. | Sumatra (*Raffles*). | India Museum. |
| *o.* ♂ ad. sk. | West Java. | A. R. Wallace, Esq. [C.]. |
| *p.* Ad. sk. | West Java. | A. R. Wallace, Esq. [C.]. |
| *q.* Ad. sk. | West Java (*A. R. Wallace*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *r.* ♂ ad. sk. | Java (*Leiden Museum*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *s.* Ad. st. | Java. | |
| *t, u.* Ad. sk. | Labuan Island. | Hugh Low, Esq. [C.]. |
| *v.* ♂ ad. sk. | Sibu, Sarawak. | Alfred Everett, Esq. [C.]. |

### 2. Micropus fusciflavescens.

Brachypodius melanocephalus (*nec Gm.*), *Ball, J. A. S. Beng.* xli. pt. 2, 1872, p. 284; *id. Str. F.* 1873, p. 71.

Brachypodius fuscoflavescens, *Hume, Str. F.* 1873, p. 297; *Walden, Ibis*, 1873, p. 306; *Hume, Str. F.* 1874, p. 224; *id. Str. F.* 1879, p. 98.

*Adult male* (S. Andaman, March 28, 1873; R. G. Wardlaw Ramsay). General colour above olive-yellow, the wing-coverts like the back, the edges of the greater series rather brighter yellow; quills dusky brown, externally olive-yellow, brighter on the secondaries, the innermost of which are almost entirely of the latter

colour; lower back, rump, and upper tail-coverts brighter yellow, with an appearance of black bands across the rump, the feathers of which are black, with broad golden-yellow ends; tail-feathers dull olive-yellow, with bright yellow tips, before which is a subterminal black shade; head dull olive, with an oily greenish gloss, not distinct enough to form a regular cap; lores, a narrow eyebrow, and the sides of the head and neck, as well as the lower throat and fore neck, dull olive-green; throat dull glossy purple; remainder of under surface of body bright yellow, as likewise the under wing-coverts and axillaries; quills dusky brown below, yellowish along the edge of the inner web; "bill greenish slate-colour; iris bluish white" (*R. G. Wardlaw Ramsay, MS.*). Total length 6·3 inches, culmen 0·65, wing 3, tail 2·7, tarsus 0·6. (*Mus. R. G. Wardlaw Ramsay.*)

*Adult female.* Similar in colour to the male. Legs and feet plumbeous; bill in some plumbeous blue, the upper mandible tipped and edged with black, in others nearly all blackish, but paler and bluer at the base; irides pale blue. (*Hume.*) Total length 7 inches, culmen 0·65, wing 3·1, tail 3, tarsus 0·6. (*Mus. R. G. Wardlaw Ramsay.*)

The Andaman Black-headed Bulbul is confined to the forests of the Andaman Islands, where it is resident.

*a.* ♀ ad. sk. South Andamans, Aug. 11, 1873 (*Capt. Wimberley*). B. Sharpe, Esq. [P.].

### 3. Micropus cinereiventris.

Brachypodius cinereiventris, *Blyth, J. A. S. Beng.* xiv. p. 576; *Wald. B. Burm.* p. 136; *Hume, Str. F.* 1878, p. 319, 1879, p. 98.
Brachypus cinereiventris, *Bp. Consp.* i. p. 264.
Pycnonotus cinereiventris, *Gray, Hand-l. B.* i. p. 271, no. 3975.

*Adult male* (Tonghoo, Nov. 6th, 1874; R. G. Wardlaw Ramsay). General colour above olive-yellow, the rump varied with black bars, the feathers being black at the base, tipped with bright yellow; upper tail-coverts bright olive-yellow; tail-feathers olive-yellow, tipped with bright yellow, before which is a broad black band; wing-coverts olive-yellow, the greater coverts brighter yellow on the margins; primary-coverts and quills blackish, the primaries narrowly edged with yellow, the secondaries more broadly, especially the innermost, which are entirely yellow on the outer webs; hind neck and mantle slaty grey, the latter slightly washed with yellow; head all round, including the sides of the face and throat, black, with a green or purplish lustre; sides of the neck and under surface of body slaty grey, the lower abdomen paler and washed with yellow; lower flanks, vent, and under tail-coverts bright yellow; under wing-coverts and axillaries yellow; quills dusky blackish below, white along the edge of the inner web. Total length 6·7 inches, culmen 0·6, wing 3·15, tail 2·8, tarsus 0·6. (*Mus. R. G. Wardlaw Ramsay.*)

On this species see Lord Tweeddale's remarks (B. Burm. p. 136) and Mr. Hume's notes (Str. Feath. 1878, vol. vi. p. 319).

The Grey-bellied Bulbul is only known from Tipperah and Burmah.

### 4. Micropus phæocephalus.

Brachypus poiocephalus, *Jerd. Madr. Journ.* x. p. 246; *id. Illust. Orn.* pl. 31.
Ixus fisquetii, *Eydoux & Souleyet, Voy. Bonite, Zool.* p. 86, pl. 5; *Bp. Consp.* i. p. 266.
Brachypodius poiocephalus, *Blyth, J. A. S. Beng.* xiv. p. 576; *id. Cat. B. Mus. As. Soc.* p. 212; *Jerd. B. Ind.* ii. p. 89; *Hume, Str. F.* 1879, p. 98.
Pycnonotus poiocephalus, *Gray, Gen. B.* i. p. 237.
Pycnonotus fisquetii, *Gray, Gen. B.* i. p. 237; *id. Hand-l. B.* i. p. 270, no. 3952.
Brachypus poliocephalus, *Bp. Consp.* i. p. 264.
Pycnonotus poliocephalus, *Gray, Hand-l. B.* i. p. 271, no. 3976.

*Adult.* General colour yellowish green, the wing-coverts like the back; greater coverts and quills blackish, externally yellowish green like the back; the innermost secondaries almost entirely of the latter colour, the primary-coverts and primaries more narrowly edged; rump barred with black, the feathers black with paler olive-yellow tips; upper tail-coverts bluish grey washed with yellow, the long ones entirely grey; centre tail-feathers bluish grey, with olive-yellow margins, the remainder blackish tipped with ashy grey and slightly edged with olive-yellow; lores and forehead clear olive-yellow; crown of head and nape bluish grey; feathers round the eye and ear-coverts olive-greenish, the latter washed with grey; fore part of cheeks olive-yellow, the hinder part grey like the throat, which has a black chin-spot; remainder of under surface of body yellowish green; the under tail-coverts grey; under wing-coverts and axillaries pale yellow or yellowish white, the edge of the wing yellowish green; quills dusky below, white along the edge of the inner web; "bill greenish brown; legs reddish yellow; iris bluish white" (*Jerdon*). Total length 6·4 inches, culmen 0·6, wing 2·8, tail 2·6, tarsus 0·65. (*Mus. R. G. Wardlaw Ramsay.*)

The South-Indian Bulbul is confined to the forests of the Malabar coast, and is a rare bird in collections.

*a.* Ad. sk. Malabar. Lieut. R. G. Wardlaw Ramsay.

### 5. Micropus chalcocephalus.

Ixos chalcocephalus, *Temm. Pl. Col.* pl. 453. fig. 1.
Brachypus chalcocephalus, *Bp. Consp.* i. p. 264.
Prosecusa chalcocephala, *Cab. Mus. Hein.* Th. i. p. 110, note.
Campephaga chalcocephala, *Gray, Hand-l. B.* i. p. 338, no. 5112.

*Adult male.* General colour above dark ashy grey; the rump-feathers black with grey ends, producing a barred appearance; upper tail-coverts paler grey than the back, with hoary white ends; tail-feathers dark ashy grey tipped with white, before which is a broad black band, the white endings broader on the outer feathers;

least wing-coverts like the back, the median and greater series a little lighter grey, paler on the margins; bastard-wing, primary-coverts, and primaries blackish brown, with scarcely perceptible grey edgings, the inner secondaries externally margined with hoary white, the innermost secondaries entirely grey on the outer webs; crown of head, sides of head, and throat metallic green, with purplish reflections under certain lights; remainder of under surface of body dark ashy grey, much paler in the centre of the body; under tail-coverts ashy grey, with white tips and margins; thighs white; under wing-coverts and axillaries white, the edge of the wing grey, as also the adjoining under wing-coverts; quills dusky brown below, white along the edge of the inner web. Total length 6·6 inches, culmen 0·6, wing 3·05, tail 2·7, tarsus 0·6.

The Javan Black-headed Bulbul is only known from the island of Java, where it is apparently by no means a common bird.

*a.* ♂ ad. sk. Java. Purchased.

### 6. Micropus melanoleucus.

Microtarsus melanoleucus, *Eyton, P. Z. S.* 1839, p. 102; *Blyth, Cat. B. Mus. As. Soc.* p. 211; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 248; *Moore, P. Z. S.* 1854, p. 279; *Salvad. Ucc. Born.* p. 202.
Microscelis, sp. 3, *Gray, Gen. B.* i. p. 235.
Microscelis tristis, *Bp. Consp.* i. p. 263 (*nec Blyth*).
Ixos vidua, *Temm. in Mus. Lugd., undè*
Brachypus vidua, *Bp. Consp.* i. p. 264.
Ixocherus vidua, *Bp. Notes Coll. Delattre in C. R.* 1854, p. 58.
Microscelis melanoleucus, *Gray, Hand-l. B.* i. p. 268, no. 3919.

*Adult.* General colour above sooty black, a little deeper on the head; least wing-coverts black; median and greater coverts creamy white, tipped with black, more broadly on the outer median coverts, which have therefore the appearance of large ovate spots of white; bastard-wing, primary-coverts, and quills black; tail-feathers black; under surface of body sooty black, deeper black on the sides of the face and chin; under wing-coverts black, with concealed white bases; axillaries pure white, black at the extreme base; quills dusky blackish below, ashy white along the inner web; "iris dark brown" (*Henry Everett*). Total length 7·1 inches, culmen 0·7, wing 3·45, tail 3, tarsus 0·6.

*Adult female.* Similar to the male. Total length 7 inches, culmen 0·65, wing 3·2, tail 2·85, tarsus 0·5.

Several specimens in the Museum are changing from an immature dress into the sooty-black plumage of the adult; and it would appear that the young plumage is olive-brown above and below, but paler on the under surface, while the white patch on the wing is absent. In this stage of plumage the bird is very like a small *Pycnonotus* of the plain olive group, but its white axillaries will always distinguish it.

The White-winged Black Bulbul is frequent in collections from the Malayan peninsula, where it ranges as high as Province Wellesley; it occurs in Borneo also, but is not so common in the latter island. It is not known to be migratory.

| | | |
|---|---|---|
| *a*. Ad. sk. | Malacca. | Eyton Collection. (Type of species). |
| *b*. ♂ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *c*, *d*. ad. sk. | Malacca. | Purchased. |
| *e*. Imm. sk. | Malacca (*Dr. Cantor*). | India Museum. |
| *f*,*g*. Ad., *h*,*i*. Juv. sk. | Malacca (*Dr. Cantor*). | India Museum. |
| *k*. Ad. st. | Singapore. | Purchased. |
| *l*. Imm. sk. | Sarawak. | Henry Everett, Esq. [C.]. |
| *m*, *n*. ♀ ad. sk. | Paku, Sarawak, Nov. 1878. | Henry Everett, Esq. [C.]. |

## 11. CRINIGER.

| | Type. |
|---|---|
| Criniger, *Temm. Man. d'Orn.* i. p. lx (1820) | C. barbatus. |
| Trichophorus, *Temm. Pl. Col.* iii. livr. 15 (1824) | C. barbatus. |
| Trichas, *Gloger, in Froriep's Notiz.* 1827, p. 278 | C. barbatus. |
| Hypotrichas, *Heine, J. f. O.* 1860, p. 138 | C. calurus. |

Head of *Criniger barbatus*.

*Range*. Africa, India, and the Burmese countries; island of Hainan; Malayan peninsula, Java, Sumatra, Borneo, Palawan. Molucca Islands.

*Key to the Species.*

*a*. Throat white.
  *a'*. Under tail-coverts bright yellow like the abdomen, or fawn-coloured washed with bright yellow.
    *a''*. Head ashy grey or dark brown, in strong contrast to the back; crest moderate.
      *a'''*. Fore neck and breast ashy grey; flanks dark olive-green ..... *chloronotus*, p. 72
      *b'''*. Fore neck and chest yellow in the centre, dark olive-green on the sides of the breast and flanks.
        $a^4$. Upper tail-coverts uniform with the back; tail-feathers brown, edged with olive and tipped with pale yellow on the inner web ..... *verreauxi*, p. 73.
        $b^4$. Upper tail-coverts and tail rufous, contrasting with the back; the tail-feathers paler rufous at the tip of the inner web ..... *calurus*, p. 74.

$c''$. Fore neck and chest bright yellow, washed slightly with olive on the sides.
$c^4$. Tail-feathers not tipped with yellow — *phæocephalus*, p. 74.
$d^4$. Tail-feathers tipped with yellow.... — *diardi*, p. 76.
$b''$. Head light brown, not in very strong contrast with the back.
$d''$. Without any grey shade on the fore neck or breast, which is bright yellow like the abdomen.
$e^4$. Head pale fulvous brown; no white on forehead; no white eyebrow above the ears ..... — *flaveolus*, p. 77.
$f^4$. Head pale fulvous brown, washed with ashy; lores and base of forehead whitish; ear-coverts white, washed with grey; above the ear-coverts a white eyebrow..... — *griseiceps*, p. 77.
$e'''$. Washed with grey on the fore neck and breast.
$g^4$. Ear-coverts brown like the head; tail rufous-brown ..... — *gularis*, p. 78.
$h^4$. Ear-coverts and a line above the ear-coverts ashy grey, contrasting with the head; tail-feathers dark brown, washed externally with olive-brown — *frater*, p. 79.
$b'$. Under tail-coverts fawn-colour or buffy brown, or inclining to chestnut ..... — *gutturalis*, p. 80.; *pallidus*, p. 81.; *ruficrissus*, p. 81.
*b*. Throat yellow.
$c'$. Tail uniform or nearly so, the inner webs of the feathers not yellow, or broadly edged or tipped with yellow.
$c''$. Breast ashy grey; back olive-greenish, mixed with ashy grey..... — *barbatus*, p. 82.
$d''$. Breast yellow or olive-yellow.
$f'''$. Lores dusky, or dull whitish, or olive.
$i^4$. Upper tail-coverts and tail rufous, contrasting with the back; throat and centre of body bright yellow, the sides green; wing less than 3 inches — *tricolor*, p. 82.; *cabanisi*, p. 83.
$k^4$. Upper tail-coverts and tail brown or reddish brown; throat and centre of the body pale yellow, the flanks olive-greenish; wing 3·25 inches.
$a^5$. Throat ashy whitish, washed with olive-yellow; ear-coverts dusky brown, streaked with minute yellow shaft-lines..... — *palawanensis*, p. 83.

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### CRINIGER TEPHROGENYS.

Trichophorus tephrogenys, *Jard. & Selby, Ill. Orn.* pl. 127.
Criniger tephrogenys, *Gray, Gen. B.* i. p. 236.

This species still remains a puzzle to ornithologists. It was originally described from "India," and afterwards was thought to be African. Nothing but an examination of the type will settle its identity. See my note to *Criniger verreauxi*.

$b^5$. Throat clear yellow; ear-coverts uniform brown, without any pale shaft-lines ..... *finschi*, p. 84.

$l^4$. Upper tail-coverts and tail olive or yellowish green, like the back; head olive-yellow, like the rest of the back; ear-coverts like the head; lores and base of cheeks dusky olive-yellowish; chin yellow ..... *chloris*, p. 85.

$g'''$. Lores, eyelid, base of cheeks, and base of chin bright yellow ..... *mystacalis*, p. 85.

$d'$. Tail with yellow ends to the feathers.

$e''$. Centre tail-feathers with the same broad yellow ending as the others; upper tail-coverts tipped with pale yellow ..... *affinis*, p. 86.

$f''$. Centre tail-feathers only narrowly tipped with yellow, not so broadly as on the other feathers.

$h'''$. General colour olive-yellowish; the tail-feathers yellow along the whole length of the inner web as well as at the tip.

$m$. Rump and upper tail-coverts brighter than the back and tipped with golden orange; throat and under-parts orange-yellow..... *aureus*, p. 86.

$n^4$. Rump and upper tail-coverts only a little yellower than the back; throat and under surface bright yellow .. *longirostris*, p. 87.

$i'''$. General colour green; three outer tail-feathers with a spot of yellow at the tip ..... *eximius*, p. 88.

### 1. Criniger chloronotus.

Trichophorus chloronotus, *Cass. Pr. Philad. Acad.* 1859, p. 43; *id. Journ. Philad. Acad.* v. p. 181, pl. xxii. fig. 1; *Heine, J. f. O.* 1859, p. 432; *Hartl. J. f. O.* 1861, p. 163; *Oustal. Nouv. Arch. Mus.* (2) ii. p. 144.

Criniger chloronotus, *Finsch, J. f. O.* 1867, p. 24; *Gray, Hand-l. B.* i. p. 273, no. 4010; *Sharpe, P. Z. S.* 1871, p. 608; *Reichen. J. f. O.* 1875, pp. 35, 49.

*Adult.* General colour above olive-green; the head, which is decidedly crested, and the hind neck slaty grey; wing-coverts like the back; quills dusky brown, externally green like the back, the inner secondaries almost entirely like the latter; upper tail-coverts rich fawn-rufous; tail deeper fawn-rufous or dark cinnamon; lores greyish white; round the eye a ring of grey feathers; cheeks and ear-coverts dull slaty grey, varied with whitish shaft-streaks; throat white; breast ashy grey, washed with olive-green on the sides; flanks olive-green, inclining to yellow on the centre of the abdomen; under tail-coverts fawn-buff; under wing-coverts and axillaries olive-green, the greater series a little browner; quills dusky brown below, fulvescent along the edge of the inner web; "bill and feet

bluish grey; iris reddish brown" (*Reichenow*). Total length 8·8 inches, culmen 0·9, wing 4·2, tail 3·7, tarsus 0·9.

A specimen from Gaboon has the greater wing-coverts and the secondaries tipped with pale rufous, apparently remains of immature plumage. Wing 3·8 inches.

Cassin's Bulbul is confined to the forest-region of West Africa from the Cameroons to Gaboon.

| | | |
|---|---|---|
| *a*. Ad. sk. | Camma River, Gaboon. | P. B. DuChaillu, Esq. [C.]. |
| *b*, *c*. Ad. sk. | Cameroons Mountains, Feb. 25, 1871 (*A. Crossley*). | R. B. Sharpe, Esq. [C.]. |

## 2. Criniger verreauxi. (Plate IV.)

Trichophorus gularis, *Swains. B. W. Afr.* ii. p. 266 (*nec Horsf.*); *Hartl. Orn. W.-Afr.* p. 82; *Sharpe, Ibis*, 1869, p. 187.
Criniger tephrogenys (*nec J. & S.*), *Finsch, J. f. O.* 1867, p. 26*; *Gray, Hand-l. B.* i. p. 273, no. 4004.
Criniger verreauxi, *Sharpe, Cat. Afr. B.* p. 21.
Criniger gularis, *Reichen. J. f. O.* 1875, p. 35.

*Adult* (type of species). General colour above dull olive-green, a little lighter on the rump and upper tail-coverts; wing-coverts like the back; quills dusky brown, externally yellowish olive, paler than the back, the secondaries again darker; tail olive-brown, yellowish olive on the outer edges of the feathers, which are paler and edged with yellow along the tip of the inner web; head and nape dull sepia-brown; lores, feathers round the eye, and a faint superciliary line dull grey; cheeks and ear-coverts greyish black, streaked with ashy whitish shaft-lines; throat white; rest of under surface of body yellow in the centre, olive-green on the sides of the body; under wing-coverts yellow, the greater series inclining to white, the axillaries olive-green, washed with brighter yellow; quills brown below, yellowish along the inner web; "upper mandible black, its edges and the under mandible bluish grey; feet leaden grey" (*Reichenow*). Total length 7·1 inches, culmen 0·9, wing 3·7, tail 3·45, tarsus 0·85.

Verreaux's Bulbul inhabits the forest-region of West Africa from the Gold Coast to the Cameroons.

| | | |
|---|---|---|
| *a*. Ad. sk. | Fantee. | R. B. Sharpe, Esq. (Type of species.) |
| *b*, *c*. Ad. sk. | Fantee (*Aubinn*). | R. B. Sharpe, Esq. |

* Jardine and Selby have described a *Trichophorus tephrogenys* from "India" (Ill. Orn. pl. 127), which Sir W. Jardine afterwards thought was the same as Swainson's *T. gularis*, as he had meanwhile admitted to have received it from Sierra Leone. Hence Dr. Finsch replaced the name of *gularis*, Swains. (*nec* Horsf.), by that of *tephrogenys* of Jardine and Selby. When I first got the Fantee specimens I wrote to Sir W. Jardine and sent him an example to compare with his type, and he informed me that my bird was *not* his *T. tephrogenys*, as, indeed, it could scarcely be, considering that the latter is described as 'castaneus.'

### 3. Criniger calurus.

Trichophorus calurus, *Cass. Pr. Philad. Acad.* 1856, p. 158; *Hartl. Orn. W.-Afr.* pp. 86, 272; *Cass. Pr. Philad. Acad.* 1859, p. 44; *Hartl. J. f. O.* 1861, p. 165; *Cass. Journ. Philad. Acad.* v. p. 182, pl. xxii. fig. 3.

Hypotrichas calurus, *Heine, J. f. O.* 1860, p. 138.

Criniger calurus, *Finsch, J. f. O.* 1867, p. 23; *Gray, Hand-l. B.* i. p. 275, no. 4041; *Sharpe, Cat. Afr. B.* p. 21; *id. P. Z. S.* 1871, p. 608; *Reichen. J. f. O.* 1875, p. 35.

*Adult.* General colour above yellowish olive-green, the least wing-coverts like the back; remainder of wing-coverts olive-brown, externally edged with the same olive colour as the back; quills dark brown, externally olive-green like the back, the inner secondaries rather more olive-brown in colour; upper tail-coverts fawn-brown; tail-feathers deeper fawn-brown or rufous-brown, margined with olivaceous on the edges; crown of head brown, contrasting with the back, the feathers a little washed with olive; hind neck and sides of face ashy, the ear-coverts with distinct white shaft-streaks; throat white; centre of body below yellow, deepening into ochraceous yellow on the under tail-coverts, the sides of the body olive-green; under wing-coverts and axillaries lighter olive-yellow; quills sepia-brown below, dull yellowish along the inner web; "upper mandible black, lower one bluish grey; feet leaden grey; iris reddish brown" (*Reichenow*). Total length 7·8 inches, culmen 0·9, wing 3·65, tail 3·4, tarsus 0·9.

DuChaillu's Bulbul is only known from West Africa, where it has been found in the Cameroons and Gaboon.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | Gaboon. | P. B. DuChaillu, Esq. [C.]. |
| *c*, *d*. Ad. sk. | Gaboon (*DuChaillu*). | R. B. Sharpe, Esq. |
| *e*. Ad. sk. | Cameroons Mountains, Feb. 7, 1871 (*A. Crossley*). | R. B. Sharpe, Esq. |

### 4. Criniger phæocephalus.

Ixos (Trichixos) phæocephalus, *Hartl. Rev. Zool.* 1844, p. 401.

Trichophorus caniceps, *Lafr. Rev. Zool.* 1845, p. 367; *Hartl. Rev. Zool.* 1846, p. 4.

Pycnonotus rufocaudatus, *Eyton, Ann. Nat. Hist.* xvi. p. 228 (male only).

Criniger gularis (*nec Horsf.*), *Strickl. P. Z. S.* 1846, p. 101; *Blyth, Cat. B. Mus. As. Soc.* p. 208; *Stoliczka, J. A. S. B.* xxxix. pt. 2, p. 315.

Criniger caniceps, *Gray, Gen. B.* i. p. 236.

Napothera sulphurata, *Müller, MS. in Mus. Lugd.*

Trichophorus sulphureus, *Temm. in Mus. Lugd.*

Trichophorus sulphuratus, *Bp. Consp.* i. p. 262.

Criniger cantori, *Moore, P. Z. S.* 1854, p. 279; *id. Cat. B. Mus. E.I. Co.* i. p. 410.

Criniger phæocephalus, *Finsch, J. f. O.* 1867, p. 17; *Walden, Ibis*, 1871, p. 169, pl. vi. fig. 2; *Salvad. Ucc. Born.* p. 207; *Tweedd. Ibis*, 1877, p. 306; *Sharpe, Ibis*, 1879, p. 257; *Hume & Davison, Stray Feathers*, 1878, p. 302; *id. Str. F.* 1879, p. 62.

Criniger phaiocephalus, *Gray, Hand-l. B.* i. p. 274, no. 4022.

Criniger sulphuratus, *Gray, Hand-l. B.* i. p. 274, no. 4028.

*Adult.* General colour above olive, the wing-coverts like the back; quills brown, externally olive-brown, the inner secondaries almost entirely of the latter colour; upper tail-coverts rufous-brown washed with olive; tail-feathers rufous-brown, edged with olive on the margins of the feathers; head and nape clear leaden grey; lores white; sides of face light grey, with an indistinct paler streak above the ear-coverts; hinder cheeks light grey; fore part of cheeks and throat white; rest of under surface bright yellow, washed with olive-green on the sides of the breast and flanks; under wing-

Tail of *Criniger phæocephalus*.

coverts and axillaries bright yellow; under surface of quills dull brown, fulvescent along the inner web; "bill plumbeous, dark above; legs fleshy; iris red-brown" (*R. G. Wardlaw Ramsay, MS.*). Total length 7·6 inches, culmen 0·85, wing 3·65, tail 3·4, tarsus 0·8.

*Obs.* Mr. Hume gives the following measurements of the sexes from Tenasserim specimens:—

♂. Total length 8·15–8·45 inches, wing 3·62–3·76, tail 3·25–3·62, tarsus 1·0–1·3.

♀. Total length 7·5–8·7 inches, wing 3·35–3·37, tail 2·75–3·0, tarsus 0·76–0·8.

The *female* is like the male in plumage: legs, feet, and claws varying from fleshy white, sometimes with a pinkish tinge, to fleshy yellow; the upper mandible from dark plumbeous to dark horny brown; lower mandible and edges of upper mandible pale plumbeous; irides snuff-brown, burnt-sienna brown, or reddish brown. (*Hume.*)

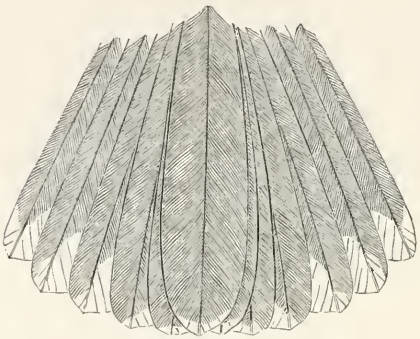
The Grey-headed Bulbul inhabits the islands of Sumatra, Borneo, and the Malayan peninsula, ranging into the forests in the neighbourhood of the Pakchan in Tenasserim.

| | | |
|---|---|---|
| *a*. Ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *b*, *c*. Ad. sk. | Malacca (*Dr. Cantor*). | India Museum. |
| *d*, *e*. Ad. sk. | Malacca (*Dr. Cantor*). | India Museum. (Types of *Criniger cantori*, Moore.) |
| *f*. Ad. sk. | Malacca. | Eyton Collection. (Type of *Pycnonotus rufocaudatus*, Eyton.) |

| | | |
|---|---|---|
| *g.* ♂ ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *h.* Ad. sk. | Sumatra (*A. R. Wallace*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *i.* Ad. sk. | N.W. Borneo. | Hugh Low, Esq. [C.]. |

### 5. Criniger diardi.

Trichophorus diardi, *Temm. MS. in Mus. Lugd., undè*
Criniger diardi, *Finsch, J. f. O.* 1867, p. 18; *Giebel, Thes. Orn.* p. 811; *Salvad. Ucc. Born.* p. 208.
Criniger phæocephalus, *Sharpe, Ibis*, 1876, p. 40 (*nec Hartl.*); *id. Ibis*, 1877, p. 14.



Tail of *Criniger diardi*.

*Adult male.* General colour above olive, the wing-coverts browner than the back, the quills externally olive like the back; upper tail-coverts and tail-feathers rufous-brown, the feathers washed with olive on the margins, all of them tipped with yellow, more largely on the inner web, and increasing in size on the outer feathers; head and nape dark grey, the plumes on the crown black with grey edgings; sides of face and sides of neck light grey; lores white; fore part of checks and throat white, the fore neck shaded with grey; under surface of body bright yellow, the sides washed with olive-green; under wing-coverts and axillaries yellow, a little paler than the breast; quills dark brown below, yellowish white along the inner web; "legs and feet pale transparent brown; iris pale orange-brown" (*A. Everett*). Total length 7·4 inches, culmen 0·8, wing 3·55, tail 3·1, tarsus 0·85.

*Adult female.* Similar in colour to the male; "legs light horn-brown; iris burnt sienna" (*A. Everett*). Total length 7·2 inches, culmen 0·75, wing 3·35, tail 3·1, tarsus 0·75.

Diard's Bulbul is only known from the island of Borneo.

| | | |
|---|---|---|
| *a.* ♀ ad. sk. | Sarawak. | A. R. Wallace, Esq. [C.]. |
| *b.* ♀ ad. sk. | Tagora, May 1875. | Alfred Everett, Esq. [C.]. |
| *c.* ♂ ad. sk. | Jambusan, Sept. 10, 1874. | Alfred Everett, Esq. [C.]. |
| *d.* ♀ ad. sk. | Paku, Dec. 1878. | Henry Everett, Esq. [C.]. |

### 6. Criniger flaveolus.

Trichophorus flaveolus, *Gould, P. Z. S.* 1836, p. 6; *McClell. P. Z. S* 1839, p. 158; *Blyth, J. A. S. Beng.* xi. p. 185; *Gray, Cat. Mamm &c. Nepal pres. Hodgs.* p. 88; *Bp. Consp.* i. p. 262.
Lanixus xanthogaster, *Hodgs. Icon. ined. Passeres in Brit. Mus.* pl. 188. figs. 1, 2 (no. 346), pl. 189. fig. 1.
Trichophorus xanthogaster, *Hodgs. in Gray's Zool. Misc.* p. 83.
Criniger flaveolus, *Blyth, J. A. S. Beng.* xvi. p. 571; *Gray, Gen. B.* i. p. 236; *Blyth, Cat. B. Mus. As. Soc.* p. 208; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 252; *Jerd. B. Ind.* ii. p. 83; *Finsch, J. f. O.* 1867, p. 16; *Gray, Hand-l. B.* i. p. 274, no. 4015; *Hume, Nest & Eggs Ind. B.* p. 283; *id. Str. F.* 1879, p. 98.
Trichas flaveola, *Cab. Arch. f. Naturg.* 1847, p. 249.

*Adult.* General colour above dark olive-yellow, with a slight ruddy tint on the upper tail-coverts; least and median wing-coverts like the back; greater coverts and quills as well as the primary-coverts brown, externally edged with olive-yellow, paler towards the ends of the primaries, the inner secondaries olive-brown with a narrow margin of dull olive-yellow; tail-feathers ruddy brown, edged with olive towards the base of the feathers; head olive-brown, the feathers long and forming a conspicuous crest, all of them margined with olive-yellow; lores greyish white; ear-coverts and sides of crown dark ashy grey, with narrow whitish shaft-lines; cheeks and throat white, the former slightly overshaded with grey; remainder of under surface of body bright yellow, slightly tinged with olive on the flanks; under wing-coverts and axillaries yellow; quills dusky brown below, pale fawn-colour along the inner web; "bill light plumbeous; legs pale fleshy yellow; iris brown-red" (*Jerdon*). Total length 8 inches, culmen 0·8, wing 3·95, tail 3·65, tarsus 0·8.

The White-throated Bulbul inhabits the Himalayas from a height of from 2000 to 5000 feet, and extends to the hills of Assam, Sylhet, Arakan, and the Khasias.

| | | |
|---|---|---|
| *a.* Ad. sk. | Cachar (*Constable*). | R. B. Sharpe, Esq. [P.]. |
| *b, c, d.* Ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *e.* Ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. (Type of *Trichophorus xanthogaster*.) |
| *f.* Ad. sk. | Nepal (*B. H. Hodgson*). | India Museum. |
| *g.* Ad. sk. | Darjiling. | India Museum. |
| *h.* Ad. sk. | Bootan (*Pemberton*). | India Museum. |
| *i, k.* Ad. sk. | Assam (*McClelland*). | India Museum. |

### 7. Criniger griseiceps.

Criniger flaveolus (*nec Hodgs.*), *Blyth, B. Burm.* p. 134.
Criniger griseiceps, *Hume, Stray Feathers*, 1873, p. 478, 1874, p. 476; *Walden, B. Burm.* p. 134; *Hume, Str. F.* 1875, p. 124; *Hume & Davison, Str. F.* 1878, p. 300; *Hume, Str. F.* 1879, p. 98.

*Adult male.* General colour above dull olive-yellow, the wing-coverts brown, externally like the back; quills dull brown, externally

olive-brown, more ruddy on the secondaries; upper tail-coverts ruddy brown or dull chestnut-brown; tail dark brown, washed with rufous-brown on the outer webs, the inner webs with a pale margin at the tip; head, which is much crested, pale ashy brown, lighter on the forehead, the lores conspicuously whitish; cheeks, ear-coverts, and the sides of the crown above the latter dull whitish, shaded with ashy on the ear-coverts; throat white; remainder of under surface of body bright yellow, deepening towards orange on the abdomen and under tail-coverts; the sides of the breast and flanks washed with olive; under wing-coverts and axillaries yellow; quills dusky brown below, fulvescent along the inner webs; "bill smoky white; legs lavender; iris bright brown" (*R. G. Wardlaw Ramsay*). Total length 8·7 inches, culmen 0·9, wing 3·95, tail 3·6, tarsus 0·75. (*Mus. R. G. Wardlaw Ramsay.*)

*Adult female.* Not to be distinguished from the male in plumage; "bill bluish, darker on the anterior half of the culmen and at tip; eyelids plumbeous; irides reddish brown: inside of mouth bluish fleshy; feet pinkish brown, claws pale horny" (*E. Oates*). Total length 8 inches, culmen 0·9, wing 3·95, tail 3·65, tarsus 0·75. (*Mus. R. G. Wardlaw Ramsay.*)

The Burmese White-throated Bulbul is found in the hills of Northern and Central Tenasserim, Pegu, and Burma.

| | | | |
|---|---|---|---|
| *a.* ♂ ad. sk. | Zeinganein, Lower Pegu, June 28, 1877 (*E. Oates*). | R. B. Sharpe, Esq. [P.]. |
| *b.* ♂ ad. sk. | Tonghoo hills, March 7, 1874 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |

## 8. Criniger gularis.

Turdus gularis, *Horsf. Trans. Linn. Soc.* xiii. p. 150.
Criniger gularis, *Gray, Gen. B.* i. p. 236; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 252; *Gray, Hand-l. B.* i. p. 274, no. 4016; *Walden, Ibis,* 1871, p. 169, pl. vi. fig. 1.
Trichas gularis, *Cab. Arch. f. Naturg.* 1847, p. 349; *id. Mus. Hein.* i. p. 114.
Trichophorus gularis, *Bp. Consp.* i. p. 262.

*Adult male.* General colour above yellowish olive, the wing-coverts olive-brown, edged with the same colour as the back; quills brown, externally olive-brown, yellowish olive on the margins, the inner secondaries olive-brown, edged with yellow on the margins; upper tail-coverts fawn-brown, contrasting with the back, and slightly washed with olive; tail-feathers rufous-brown, with a faintly indicated paler brown tip to the inner web of some of the outer feathers; all the tail-feathers edged with olive; head crested, light brown, the hind neck ashy brown like the sides of the head, the ear-coverts slightly varied with obscure ashy shaft-streaks, the lores and feathers round the eye clearer ashy grey; throat white; rest of under surface of body yellow, brighter on the abdomen; fore neck and chest ashy grey washed with yellow; under wing-coverts and axillaries yellow; quills dusky brown below, fulvescent along the

inner web. Total length 8·5 inches, culmen 0·8, wing 4, tail 3·6, tarsus 0·85.

The Javan White-throated Bulbul is only found in the forests of Java.

| | | |
|---|---|---|
| *a*. Ad. sk. | Java (*Dr. Horsfield*). | India Museum. (Type of species.) |
| *b*. Ad. sk. | Java. | Purchased. |
| *c*. ♂ ad. sk. | East Java. | A. R. Wallace, Esq. [C.]. |
| *d*, *e*. ♂ ad. sk. | West Java. | A. R. Wallace, Esq. [C.]. |
| *f*. ♂ ad. sk. | Java (*Lautier*). | F. Godman and O. Salvin, Esqrs. [P.]. |

### 9. Criniger frater. (Plate V.)

Criniger frater, *Sharpe, Tr. Linn. Soc. 2nd series, Zool.* vol. i. p. 334; *Tweedd. P. Z. S.* 1878, p. 619.

*Adult male* (type of species). Head rather crested, brown, with very long hair-like bristles reaching beyond the centre of the mantle; lores, an indistinct eyebrow, and sides of face greyish ashy, with whitish shaft-lines to the feathers; entire back olive-brown of a yellowish cast, the least wing-coverts uniform with the back; rest of the coverts and quills olive-brown, the latter externally washed with olive; upper tail-coverts and tail brown, edged with yellowish olive; throat and fore neck whitish, with narrow shaft-lines of pure white, the fore neck slightly washed with bright yellow; rest of the under surface bright ochre-yellow, deepening into dull ochraceous on the vent and under tail-coverts, the sides of the body olivaceous; under wing-coverts brighter yellow; lower surface of quills dark brown, edged with pale buff along the inner webs; bill horn-brown, yellowish at base of lower mandible; feet pale flesh-colour (in skin); "iris light red" (*Steere*): "iris red-brown; bill horn-grey, darker on culmen" (*A. Everett*). Total length 8·3 inches, culmen 0·95, wing 4, tail 3·7, tarsus 0·85. (*Coll. J. B. Steere.*)

The *adult female* does not differ from the male in colour: "bill dark grey, the mandible whitish; legs, feet, and nails pallid brown" (*A. Everett*).

The sexes measure:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| ♂. Puerto Princesa (*A. Everett*)..... | 8·0 | 0·95 | 4·1 | 3·6 | 0·9 |
| ♀. Puerto Princesa (*A. Everett*)..... | 8·5 | 0·9 | 3·85 | 3·65 | 0·9 |

The Palawan White-throated Bulbul is only known from the island of Palawan.

| | | |
|---|---|---|
| *a*. Ad. sk. | Puerto Princesa, Palawan (*A. Everett*). | Lieut. R. G. Wardlaw Ramsay. |

### 10. Criniger gutturalis.

Pycnonotus rufocaudatus ♀, *Eyton, Ann. Nat. Hist.* xiii. p. 228.
Trichophorus gutturalis, *Bp. Consp.* i. p. 262 (*ex Müller MS. in Mus. Lugd.*).
Criniger ochraceus, *Moore, in Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 252; *Gray, Hand-l. B.* i. p. 274, no. 4031; *Blyth & Wald. B. Burm.* p. 134.
Criniger gutturalis, *Sclater, P. Z. S.* 1863, p. 216; *Finsch, J. f. O.* 1867, p. 15; *Gray, Hand-l. B.* i. p. 274, no. 4017; *Salvad. Ucc. Born.* p. 206; *Sharpe, Ibis,* 1877, p. 14; *Hume, Str. F.* 1879, pp. 61, 98.

*Adult male.* General colour above olive-brown; lesser wing-coverts rather more rufescent than the back; median and greater coverts brown, shaded with olivaceous on their edges; quills dull brown, inclining to rufescent brown, especially on the secondaries, and washed with olivaceous on their outer margins; upper tail-coverts rufescent or deep fawn-colour; tail-feathers rufous-brown with faint olivaceous edgings, the outer feathers rather paler at the tip of the inner webs; head rufous-brown, contrasting in colour with the back, the hind neck somewhat more ashy; lores, feathers round the eye, and a faintly indicated eyebrow ashy, the ear-coverts rather browner, and having fulvous shaft-streaks; throat white; rest of under surface olive-yellowish, purer yellow on the abdomen, and deepening to fawn-colour on the under tail-coverts, the breast somewhat more shaded with ashy brown, washed with olive, the flanks washed with olive; under wing-coverts fawn-colour, washed with yellow on the edge of the wing; quills dusky brown below, pale fawn-colour along the inner webs; "bill blackish, pale at base; legs and feet yellow-brown; iris orange-brown" (*A. Everett*). Total length 8·5 inches, culmen 0·85, wing 3·95, tail 3·45, tarsus 0·85.

*Adult female.* Similar to the male in colour. Total length 8·3 inches, culmen 0·9, wing 3·95, tail 3·4, tarsus 0·9.

*Obs.* Specimens from the various localities appear to be exactly alike; but some individuals seem to be rather greener than others. *C. ochraceus* of Moore, from Tenasserim, is a smaller race, as already pointed out by Lord Tweeddale; but from the measurements given by Mr. Hume (Str. F. 1878, p. 301) it is evident that some individuals of *C. ochraceus* are equal to those of true *C. gutturalis*.

The Malayan White-throated Bulbul is an inhabitant of the forests of Sumatra, Borneo, and the Malayan peninsula, ranging into the evergreen forests of the extreme southern division of Tenasserim.

| | | |
|---|---|---|
| *a.* Ad. sk. | Tenasserim (*Dr. Helfer*). | India Museum. (Type of *Criniger ochraceus*, Moore.) |
| *b.* ♀ ad. sk. | Near Tavoy, May 29, 1874 (*W. Davison*). | A. O. Hume, Esq. |
| *c.* ♀ ad. sk. | Meeta Myo, April 17, 1874 (*W. Davison*). | A. O. Hume, Esq. |
| *d, e.* Ad. sk. | Malacca (*Dr. Cantor*). | India Museum. |
| *f.* Ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *g.* ♀ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |

| | | |
|---|---|---|
| *h.* Ad. sk. | Malacca. | Eyton Collection. (*Pycnonotus rufocaudatus* ♀, Eyton.) |
| *i.* ♂ ad. sk. | Sumatra. | Purchased. |
| *k.* Ad. sk. | Sumatra. | Purchased. |
| *l.* Ad. sk. | Lolo, Sumatra (*C. Bock*). | Lieut. R. G. Wardlaw Ramsay. |
| *m, n.* Ad. sk. | Borneo. | Purchased. |
| *o.* Ad. sk. | N.W. Borneo. | Hugh Low, Esq. [C.]. |
| *p, q.* ♂ ♀ ad. sk. | Bintulu. | Alfred Everett, Esq. [C.]. |
| *r.* ♀ ad. sk. | Paku, Sarawak. | Henry Everett, Esq. [C.]. |
| *s.* Ad. sk. | Banjermassing. | J. Motley, Esq. [C.]. |

### 11. Criniger pallidus.

Criniger pallidus, *Swinh. Ibis*, 1870, p. 252; *id. P. Z. S.* 1871, p. 370; *David et Oustalet, Ois. Chine*, p. 138.

*Adult.* General colour above olive-brown with a greenish shade; least wing-coverts like the back; lesser and median wing-coverts brown, with olivaceous margins; quills dark brown, externally olive-brown, inclining to olive-yellow on the extreme margins; upper tail-coverts a little clearer brown than the back, with scarcely any olive tinge, and more resembling the tail; tail-feathers ruddy brown, with a slight olivaceous tinge on the edges of the feathers; head very much crested, brown slightly washed with olive, and contrasting with the back; lores, a faint eyebrow, feathers round the eye, and sides of face dull ashy, with whitish shaft-stripes to the ear-coverts; throat white; rest of under surface of body pale olive-yellowish, clearer in the centre of the abdomen and deepening into fawn-colour on the under tail-coverts; the sides of the body and flanks olive-greenish; the fore neck ashy grey, below the white throat, slightly washed with olive-yellow or greenish; under wing-coverts fawn-coloured, yellowish on the edge of the wing; quills brown below, fawn-coloured along the edge of the inner web; "bill blackish, pale on the lower mandible; legs and toes light yellowish brown; iris light umber-brown" (*Swinhoe*). Total length 8·5 inches, culmen 0·8, wing 4·15, tail 4·15, tarsus 0·75.

Swinhoe's White-throated Bulbul is only known from the island of Hainan, off the coast of China.

| | | |
|---|---|---|
| *a.* Ad. sk. | Hainan, Feb. 1868. | R. Swinhoe, Esq. [C.]. |

### 12. Criniger ruficrissus.

Criniger ruficrissus, *Sharpe, P. Z. S.* 1879, p. 248; *Reichen. & Schalow, J. f. O.* 1879, p. 432.

*Adult* (type of species). Similar to *Criniger gutturalis*, but everywhere duller; the upper tail-coverts and tail-feathers dark rufous-brown; the lores and region of the eye, as well as the cheeks and ear-coverts, dull ashy; throat white; rest of under surface of body dull olivaceous, the under tail-coverts chestnut. Total length 8 inches, culmen 0·85, wing 4, tail 4, tarsus 0·7. (*Mus. Univ. Oxon.*)

The Red-vented White-throated Bulbul was recently discovered on Kina-Balu Mountain, in North-western Borneo.

*Obs.* This species is not very distinct from *C. gutturalis*; but differs in its much darker coloration, especially on the under surface, which is dull olivaceous, with a white throat and chestnut-red under tail-coverts. There is an entire absence of the pale brown colour of the breast washed with yellow, and of the light yellow abdomen and pale fawn-coloured under tail-coverts. The crest is very long in *C. rufigrissus*, and extends nearly to the mantle.

### 13. Criniger barbatus.

Trichophorus barbatus, *Temm. Pl. Col.* iii. pl. 82; *Schinz, Vög. Abbild.* Taf. 28; *Less. Compl. Buff.* vi. p. 98; *Gray, Gen. B.* i. p. 236; *Bp. Consp.* i. p. 262; *Hartl. Orn. W.-Afr.* p. 82.

Trichas barbata, *Gloger in Froriep's Notiz.* 1827, p. 278; *Cab. Arch. f Naturg.* 1847, p. 349.

Trichophorus strigilatus, *Swains. B. W. Afr.* i. p. 267.

Trichophorus cinerascens, *Hartl. P. Z. S.* 1859, p. 293; *id. J. f. O.* 1861, p. 165.

Criniger barbatus, *Finsch, J. f. O.* 1867, p. 21; *Gray, Hand-l. B.* i. p. 274, no. 4024; *Sharpe, Cat. Afr. B.* p. 22.

Criniger cinerascens, *Finsch, J. f. O.* 1867, p. 32.

*Adult.* General colour above yellowish olive-green, shaded on the head and mantle with grey, the feathers having grey ends; wing-coverts like the back, the quills dark brown, externally olive-yellow, the secondaries nearly entirely of the latter colour; tail-feathers reddish brown, with somewhat of a golden-brown lustre, the feathers externally washed with yellowish olive; lores and a faint superciliary line dusky grey; cheeks and ear-coverts dusky olivaceous, with very distinct yellowish-white shaft-streaks; throat bright yellow; remainder of the under surface of body dull olivaceous, the fore neck and breast more greyish, the feathers having greyish endings and greyish-white shaft-lines; under tail-coverts yellowish buff; under wing-coverts and axillaries yellowish buff; under surface of quills dusky brown, yellowish buff along the edge of the inner web. Total length 8·5 inches, culmen 0·95, wing 4·25, tail 4, tarsus 0·9.

The Yellow-bearded Bulbul is an inhabitant of the forests of West Africa, from the Gambia to the Gold Coast.

| | | |
|---|---|---|
| *a, b.* Ad. sk. | Fantee (*Governor Ussher*). | R. B. Sharpe, Esq. |
| *c.* Ad. sk. | Ashantee. | J. Gould, Esq. |

(Type of *Trichophorus cinerascens.*)

### 14. Criniger tricolor *.

Trichophorus icterinus, *Bp. Consp.* i. p. 262 (*ex Temm. MS. in Mus. Lugd.*); *Hartl. Orn. W.-Afr.* p. 83.

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* This species is called *tricolor* on account of the similarity of two names occurring in the genus *Criniger*, viz. *C. icterinus*, Bp., and *C. ictericus*, Strickl.

Trichophorus tricolor, *Cass. Pr. Philad. Acad.* 1857, p. 33; *Hartl. Orn. W.-Afr.* p. 265; *id. J. f. O.* 1861, p. 164.
Xenocichla tricolor, *Cass. Pr. Philad. Acad.* 1859, p. 45; *Heine, J. f. O.* 1860, p. 139.
Criniger tricolor, *Finsch, J. f. O.* 1867, p. 25; *Sharpe, Ibis*, 1869, p. 382; *Gray, Hand-l. B.* i. p. 273, no. 4005; *Sharpe, Cat. Afr. B.* p. 21; *id. P. Z. S.* 1871, p. 608; *Reichen. J. f. O.* 1875, p. 49.
Criniger ieterinus, *Gray, Hand-l. B.* i. p. 273, no. 4008.

*Adult.* General colour above olive-green, a little darker on the head, the least and median wing-coverts like the back; the greater coverts and the secondaries reddish brown, narrowly edged with olive-green; primaries dark brown, margined externally with olive-yellowish; tail-feathers rufous-brown, obscurely edged with olive; lores dull yellowish; ear-coverts olive-green, with narrow shaft-lines of yellow; cheeks, throat, and under surface of body light yellow, shaded with olive-green on the breast; the sides of the body and thighs olive-green; under wing-coverts and axillaries yellow; quills brown below, yellowish along the inner webs, inclining to fawn-colour on the secondaries; bill blackish horn-colour, whitish horn-colour along the edge of the upper mandible, the lower one whitish horn, darker at base; feet light brown. Total length 6·2 inches, culmen 0·75, wing 2·9, tail 2·9, tarsus 0·75.

The Yellow-breasted Bulbul is found in West Africa, from the Gold Coast to the Gaboon.

| | | |
|---|---|---|
| *a*. Ad. sk. | Fantee. | R. B. Sharpe, Esq. |
| *b*. Ad. sk. | Cameroons Mountains, Jan. 18, 1871 (*A. Crossley*). | R. B. Sharpe, Esq. |
| *c*, *d*. Ad. sk. | Gaboon (*DuChaillu*). | R. B. Sharpe, Esq. |
| *e*. Ad. sk. | Muni River, Gaboon. | P. B. DuChaillu, Esq. [C.]. |
| *f*. Ad. sk. | West Africa. | Capt. Sabine [P.]. |

### 15. Criniger cabanisi.

Trichophorus flaveolus, *Cabanis, Orn. Centralbl.* 1880, p. 174 (*nec Gould*).

A large subspecies of *C. tricolor*, Cass. (*icterinus*, Bp.), from which it differs in the colour of the underparts, which are paler and lighter yellow; besides the difference of colour the latter is remarkably smaller in its dimensions. (*Cabanis.*)

The Angola Yellow-breasted Bulbul replaces the foregoing species in Angola. I have never seen a specimen, and have transcribed the original description of Dr. Cabanis.

### 16. Criniger palawanensis. (Plate VI. fig. 2.)

Criniger palawanensis, *Tweedd. P. Z. S.* 1878, p. 618.

*Adult male* (type of species). General colour above dull olive-brown, the upper tail-coverts and tail-feathers umber-brown, with

olive-brown margins; wings brown, the feathers edged with olive-brown like the back, paler towards the ends of the primaries; head clearer brown than the back, and varied with narrow shaft-lines of dull whity brown; lores pale yellowish, washed with olive-green; ear-coverts olive-brown, with narrow shaft-lines of yellowish white cheeks and throat pale yellow, streaked with white centres to the feathers, this appearance extending to the fore neck, which is slightly brighter yellow; centre of abdomen pale yellow; breast and sides of the body olive-brown; under tail-coverts slightly more ochraceous yellow; under wing-coverts and axillaries bright yellow; quills dusky brown, edged with yellow along the inner web. Total length 7 inches, culmen 0·8, wing 3·4, tail 3, tarsus 0·8. (*Mus. R. G. Wardlaw Ramsay.*)

*Adult female.* Does not differ from the male in colour; "bill dark dusky grey, the mandible whitish; legs and claws pale brown; iris lemon-yellow" (*A. Everett*). Total length 6·7 inches, culmen 0·75, wing 3·25, tail 2·9, tarsus 0·7. (*Mus. R. G. Wardlaw Ramsay.*)

*Obs.* This species is very closely allied to *C. finschi* of Borneo, but differs in having minute pale shaft-lines on the head and ear-coverts.

Lord Tweeddale's Bulbul is only known from the island of Palawan, in the Philippine archipelago.

*a.* Ad. sk. Puerto Princesa, Palawan Lieut. R. G. Wardlaw Ramsay. (*A. Everett*).

### 17. Criniger finschi. (Plate VI. fig. 1.)

Criniger finschii, *Salvad. Atti R. Accad. Torino*, vi. p. 128; *id. Ucc. Born.* p. 209.
Criniger theoides, *Hume, Str. F.* 1876, p. 214; *id. Str. F.* 1879, p. 61.

*Adult male.* General colour above dusky olive-brown, a little greener on the lower back and rump: upper tail-coverts slightly more ruddy brown; tail-feathers brown, edged narrowly with olive; wing-coverts and quills brown, edged with the same colour as the back, a little brighter on the margins of the primaries; feathers of the head with faintly indicated paler tips, producing a slightly scaled appearance; lores and sides of the face dusky olive-greenish, the cheeks washed with paler yellow; throat, centre of breast, abdomen, and under tail-coverts pale yellow, the sides of the body, breast, and fore neck olive-greenish; under wing-coverts and axillaries pale yellow; quills dark brown below, yellowish along the inner web; "bill and feet dusky, iris brown" (*Wallace, MS.*). Total length 6·8 inches, culmen 0·75, wing 3·25, tail 2·95, tarsus 0·65.

*Adult female.* Similar to the male in plumage. Total length 6·2 inches, culmen 0·75, wing 3·25, tail 2·6, tarsus 0·65.

Dr. Finsch's Bulbul is found in the Malayan peninsula and Borneo.

*a.* ♂ ad. sk. Mount Ophir, Malacca. A. R. Wallace, Esq. [C.].

| | | |
|---|---|---|
| *b.* ♀ ad. sk. | Near Tagora, Sarawak, April 1877. | Henry Everett, Esq. [C.]. |
| *c.* Ad. sk. | Borneo. | Purchased. |

### 18. Criniger chloris.

Criniger flavicandus, *Gray, P. Z. S.* 1860, p. 251 (*nec Bp.*).
Criniger simplex, *Wall. Ibis*, 1862, p. 350 (*nec Temm.*).
Trichophorus simplex, *Finsch, Neu-Guinea*, p. 168.
Criniger chloris, *Finsch, J. f. O.* 1867, p. 36; *Gray, Hand-l. B.* i. p. 274, no. 4021; *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 183.

*Adult female* (type of *C. simplex*). General colour above dull olive-yellow, the wing-coverts like the back; quills brown, externally olive-yellow like the back, both the greater coverts and the primaries narrowly edged with brighter yellow; tail-feathers dark olive-yellow, with a narrow margin of rather brighter yellow; ear-coverts and sides of face dark olive-yellow, the fore part of the cheeks more dusky, the lores ashy brown; throat bright yellow, as also the centre of the body and abdomen; chest and sides of the body olive, the former with indistinct sharp lines of bright yellow; thighs and under tail-coverts olive with yellow edges; under wing-coverts and axillaries bright yellow; quills brown below, yellow along the edge of the inner web; "bill dusky lead-colour, the margins pale; feet lead-colour; iris dark" (*Wallace*). Total length 8·5 inches, culmen 0·95, wing 3·95, tail 3·6, tarsus 0·75.

*Adult male*. Similar in colour to the female. Total length 8·3 inches, culmen 0·9, wing 4, tail 3·4, tarsus 0·75.

The Moluccan Bulbul inhabits the islands of Batchian and Gilolo or Halmahera.

| | | |
|---|---|---|
| *a.* ♀ ad. sk. | Gilolo. | A. R. Wallace, Esq. [C.]. (Type of *Criniger simplex*, Wallace.) |
| *b.* ♂ ad. sk. | Gilolo. | A. R. Wallace, Esq. [C.]. |
| *c, d.* Ad. sk. | Gilolo. | A. R. Wallace, Esq. [C.]. |
| *e, f.* Ad. sk. | Batchian. | A. R. Wallace, Esq. [C.]. |
| *g.* Ad. st. | Batchian. | A. R. Wallace, Esq. [C.]. |

### 19. Criniger mystacalis.

Criniger mystacalis, *Wall. P. Z S.* 1863, p. 28; *Gray, Hand-l. B.* i. p. 274, no. 4020; *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 183 (1880).
Trichophorus mystacalis, *Finsch, Neu-Guinea*, p. 168.

*Adult male* (type of species). General colour above yellowish green, the wing-coverts like the back; quills brown, externally olive-yellow, a little brighter than the back; tail-feathers olive-greenish, edged with olive-yellow; lores, base of cheeks, and a ring of feathers round the eye bright yellow; above the ear-coverts a slight yellowish wash, not sufficient to indicate an eyebrow; remainder of cheeks and ear-coverts olive-yellow, the latter with brighter yellow shaft-lines; under surface of body greenish yellow,

brighter on the chin and abdomen, the lower throat and breast with indistinct yellow shaft-lines; under wing-coverts and axillaries golden yellow, washed with olive near the edge of the wing; quills dusky brown below, yellowish along the edge of the inner web. Total length 9·5 inches, culmen 1, wing 4·25, tail 3·8, tarsus 0·75.

*Adult female.* Similar in plumage to the male. Total length 9 inches, culmen 1, wing 3·9, tail 3·5, tarsus 0·75.

The Bouru Bulbul is confined to the island of Bouru.

| | | |
|---|---|---|
| *a, b.* ♂ ♀ ad. sk. | Bouru. | A. R. Wallace, Esq. [C.]. (Types of species.) |
| *c.* Ad. sk. | Bouru. | A. R. Wallace, Esq. [C.]. |

### 20. Criniger affinis.

Criniger affinis, *Hombr. et Jacq. Ann. Sci. Nat.* (2) xvi. p. 313; *Gray, Gen. B.* i. p. 230; *Finsch, J. f. O.* 1867, p. 35; *Gray, Hand-l. B.* i. p. 274, no. 4018; *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 183 (1880).

Crinon analogue, *Hombr. et Jacq. Voy. Pôle Sud, Atlas,* pl. 15. fig. 1.

Trichophorus flavicaudus, *Bp. Consp.* i. p. 262; *Finsch, Neu-Guinea,* p. 168.

Trichophorus affinis, *Jacq. et Pucher. Voy. Pôle Sud, Zool.* iii. p. 80.

Trichophorus sulphuraceus, *Temm. in Mus. Lugd.*; *Licht. Nomencl.* p. 28.

*Adult male.* General colour above yellowish green, the upper tail-coverts tipped with yellow, forming a bar across the base of the tail; tail yellowish green, the feathers all broadly tipped with yellow, which colour also occupies the greater part of the inner web, increasing in extent towards the outermost feather, so that the tail appears almost entirely yellow when seen from below; wing-coverts like the back, with slight yellow tips to the median and greater series; quills brown, externally yellowish green, with a narrow edging of olive-yellow on the quills and greater coverts; lores pale yellow; sides of face and cheeks dull olive-greenish; throat pale yellow; remainder of under surface bright yellow, the sides of the neck and breast olive-greenish, which extends along the flanks; under wing-coverts and axillaries bright yellow; quills brown, edged with yellow along the inner web. Total length 9·5 inches, culmen 1·15, wing 4·3, tail 3·6, tarsus 0·8.

*Adult female.* Similar to the male in plumage. Total length 8·8 inches, culmen 1·05, wing 4·15, tail 3·35, tarsus 0·75.

Hombron's Bulbul is an inhabitant of Ceram and Amboina.

| | | |
|---|---|---|
| *a.* Ad. sk. | Amboina. | Purchased. |
| *b.* Ad. sk. | Ceram. | A. R. Wallace, Esq. [C.]. |
| *c.* ♀ ad. sk. | Ceram. | A. R. Wallace, Esq. [C.]. |
| *d.* ♂ ad. sk. | N. Ceram. | A. R. Wallace, Esq. [C.]. |

### 21. Criniger aureus.

Criniger aureus, *Walden, Ann. Nat. Hist.* (4) ix. p. 400; *Meyer, J. f. O.* 1873, p. 404; *id. Ibis*, 1879, p. 130.

*Adult male* (type of species). General colour above rich olive-yellow, lighter on the lower back, rump, and upper tail-coverts, which are washed with orange, a slight tinge of which is also apparent on the mantle and back; wing-coverts like the back, the median and greater series narrowly edged with brighter yellow externally; quills dark brown, externally bright olive-yellow tinged with orange, the inner secondaries olive-yellow with a stronger wash of orange; tail-feathers dark olive-yellow, the centre ones washed with orange; all of the rectrices tipped with bright yellow, which extends along the inner web of the feathers for nearly the entire length, excepting on the centre ones, which have only a narrow yellow tip; lores yellow; ear-coverts and cheeks dark olive-yellow like the head; throat and under surface of body rich golden yellow inclining to orange; under tail-coverts rich orange-yellow; fore neck and sides of breast washed with olive; under wing-coverts and axillaries golden yellow; quills dusky brown, yellow along the edge of the inner web. Total length 10 inches, culmen 1·1, wing 4·9, tail 4·6, tarsus 0·8. (*Mus. R. G. Wardlaw Ramsay.*)

Meyer's Bulbul is only known from the Togian Islands.

### 22. Criniger longirostris.

Criniger longirostris, *Wall. P. Z. S.* 1862, p. 339; *Gray, Hand-l. B.* i. p. 274, no. 4019.

Trichophorus longirostris, *Finsch, Neu-Guinea*, p. 168.

*Adult male* (type of species). General colour above olive-yellow, rather brighter on the lower back and rump, and a little duller on the head; lesser wing-coverts like the back; median and greater coverts and quills blackish, externally olive-yellow, brighter on the extreme margins of the feathers; tail-feathers dull olive-yellow, tipped with pale yellow, principally on the inner web, where it increases gradually in size towards the outer feathers, and extends some way along the margin of the inner web; sides of head olive-green, washed with brighter yellow on the lores and streaked with brighter yellow on the ear-coverts; throat olive-yellow, duller on the fore neck and breast, all of these parts indistinctly streaked with yellow shaft-lines; remainder of the under surface bright yellow, a little washed with olive on the sides of the body; under wing-coverts and axillaries bright yellow; quills dark brown below, yellow along the edge of the inner web. Total length 10·2 inches, culmen 1·2, wing 4·8, tail 4·5, tarsus 0·85.

The Long-billed Bulbul is only known from the Sula Islands, near Celebes, where it is apparently a resident, like the rest of the genus.

| | | |
|---|---|---|
| *a*. ♂ ad. sk. | Sula Islands. | A. R. Wallace, Esq. [C.]. (Type of species.) |
| *b*, *c*. Ad. sk. | Sula Islands. | A. R. Wallace, Esq. [C.]. |

### 23. Criniger eximius.

Trichophorus eximius, *Hartl. J. f. O.* 1856, p. 356; *id. Orn. West-Afr.* p. 85.

Criniger eximius, *Finsch, J. f. O.* 1867, p. 31; *Gray, Hand-l. B.* i. p. 274, no. 4027; *Sharpe, Ibis*, 1869, p. 382; *id. Cat. Afr. B.* p. 22.

*Adult.* General colour above olive-green, a little more dusky on the head; wing-coverts like the back, the quills dusky brown, externally olive-green; tail-feathers dull olive-green, a little brighter olive on the edges of the feathers, the three outer feathers tipped with pale yellow, increasing a little on the outermost; lores and a narrow superciliary line yellowish; cheeks and ear-coverts dark olive-green; under surface of body bright yellow, the sides of the body and thighs olive-green; under wing-coverts and axillaries yellow; quills dusky brown, edged with yellow along the inner web. Total length 7·9 inches, culmen 0·9, wing 4·1, tail 3·7, tarsus 1.

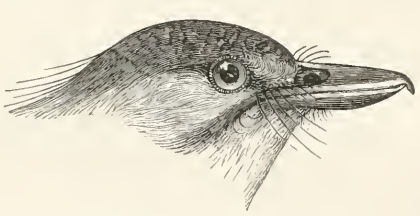
The Gold-Coast Bulbul has only been met with in the forests of the Gold Coast, where it is apparently a rare bird.

| | | |
|---|---|---|
| *a*. Ad. sk. | Fantee. | R. B. Sharpe, Esq. |
| *b*. Ad. sk. | Denkera, Fantee. | R. B. Sharpe, Esq. [P.]. |

## 12. TRICHOPHOROPSIS.

Type.

Trichophoropsis, *Bp. Comptes Rendus*, xxxviii. p. 59 (1854). T. typus.



Head of *Trichophoropsis typus*.

*Range*. Confined to Borneo.

### 1. Trichophoropsis typus.

Trichophoropsis typus, *Bp. Comptes Rendus*, 1854, p. 59; *Salvad. Ucc. Born.* p. 203; *Sharpe, Ibis*, 1877, p. 15; *id. Ibis*, 1879, p. 256.

Criniger bemmeleni, *Finsch, J. f. O.* 1867, p. 29.

Trichophorus notatus, *Temm. in Mus. Lugd., teste Finsch* (*nec Cass.*).
Criniger typus, *Gray, Hand-l. B.* i. p. 275, no. 4046.
Setornis criniger, *Walden, Ibis*, 1872, p. 377, pl. xii. (*nec Less. Rev. Zool.* 1839, pp. 167, 198).

*Adult male.* General colour above dark olive-brown, the head deeper brown, the long feathers of the rump much paler than the back; least and median wing-coverts like the back, the greater coverts and quills dark brown, rufous-brown externally; tail blackish, externally washed with brown near the base, all but the two centre tail-feathers having a large white spot at the tip of the inner web; lores, eyelid, and an ill-defined narrow eyebrow greyish white; in front of and behind the eye a dusky brown spot; ear-coverts brown, with whitish shaft-lines, with a greyish-white shade under the eye, the cheeks white, obscured by dusky tips to the feathers, which make a somewhat dark line along the upper edge of the cheeks; throat and fore neck white; breast pale yellow, shading into white on the abdomen and under tail-coverts, the sides of the body olive-brown; thighs white, brown on the posterior aspect; under wing-coverts and axillaries white, slightly washed with yellow; on the outer edge of the wing a brown patch; quills brown below, whitish along the edge of the inner web; "bill and legs pale bluish; legs and feet purplish lead-colour; iris raw sienna" (*Alfred Everett*). Total length 8 inches, culmen 0·95, wing 3·85, tail 3·4, tarsus 0·75.

*Adult female.* Similar to the male in plumage; "bill pale leaden blue; legs pinkish grey; iris chocolate" (*A. Everett*). Total length 7·4 inches, culmen 0·85, wing 3·6, tail 3·2, tarsus 0·7.

Van Bemmelen's Bulbul is a resident in the island of Borneo.

| | | |
|---|---|---|
| *a*. Ad. sk. | Borneo. | Purchased. |
| *b*. Ad. sk. | Lumbidan. | Hugh Low, Esq. [C.]. |
| *c*, *d*. ♂ ♀ ad. sk. | Bintulu. | Alfred Everett, Esq. [C.]. |
| *e*. ♂ ad. sk. | Sibu, Sarawak, July 23, 1874. | Alfred Everett, Esq. [C.]. |
| *f*. ♀ ad. sk. | Sibu, Sarawak, Nov. 21, 1874. | Alfred Everett, Esq. [C.]. |
| *g*. ♀ ad. sk. | Sarawak. | A. R. Wallace, Esq. [C.]. |

## 13. TRICHOLESTES.

Type.
Tricholestes, *Salvad. Ucc. Born.* p. 205 (1874)..... T. criniger.

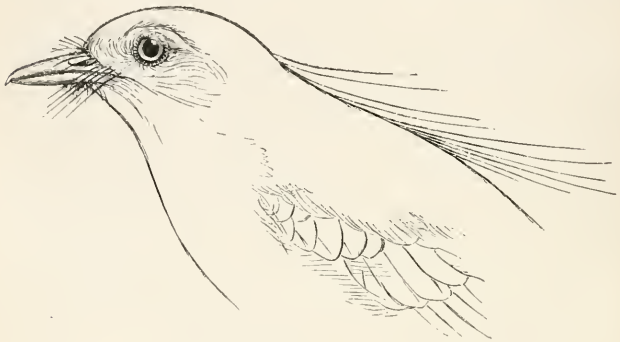
*Range.* Malacca and Borneo.

### 1. Tricholestes criniger.

Brachypodius? criniger, *Blyth, J. A. S. Beng.* xiv. p. 577 (*ex A. Hay, MS.*).
Setornis criniger, *Blyth, Cat. B. Mus. As. Soc.* p. 212 (*nec Less.*).
Trichophorus minutus, *Hartl. J. f. O.* 1853, p. 156.
Trichophoropsis viridis, *Bp. C. R.* 1854, p. 59.
Criniger minutus, *Finsch, J. f. O.* 1867, p. 19; *Gray, Hand-l. B.* i. p. 274, no. 4032.
Andropodus xanthogenys, *Temm. in Mus. Lugd.*

Criniger sericea, *Blyth, Ibis*, 1865 p. 48 (*ex Müller in Mus. Lugd.*).
Criniger viridis, *Gray, Hand-l. B.* i. p. 275, no. 4050.
Criniger criniger, *Gray, Hand-l. B.* i. p. 275, no. 4052.
Brachypus criniger, *Walden, Ibis*, 1872, p. 378.
Tricholestes minutus, *Salvad. Ucc. Born.* p. 205, tav. v. fig. 1; *Sharpe, Ibis*, 1877, p. 14; *id. Ibis*, 1879, p. 257.
Tricholestes criniger, *Tweedd. Ibis*, 1877, p. 306; *Hume & Davison, Str. F.* 1878, p. 304; *Hume, Str. F.* 1879, pp. 62, 98.

*Adult male.* General colour above dull yellowish olive, with remarkable long black hairs on the hind neck and mantle; wing-



Outline of *Tricholestes criniger*, to show long bristles on the back.

coverts brown, washed with the same colour as the back; quills brown, externally olive-brown, contrasting with the rest of the wing; upper tail-coverts and tail-feathers fawn-brown, or slightly rufous-brown, marked with yellowish olive on their margins, the outer tail-feathers tipped with pale yellow on the inner web; crown of head light brown, contrasting with the back; lores, feathers above and below the eye, and sides of face light yellow; under surface of body light yellow, whitish on the throat, the breast somewhat mottled with green, the feathers being edged with this colour, the flanks washed with olive; under wing-coverts light yellow, the greater series whitish; under surface of quills brown, fulvescent along the edge of the inner web; "bill pale leaden; legs and feet light yellow-brown; iris pale sepia-brown" (*A. Everett*): "the legs and feet are pale bluish, or pinkish brown, or salmon fleshy; claws pale plumbeous blue; lower mandible and edge of upper mandible pale plumbeous; ridge of culmen and tip of upper mandible black; ridge of upper mandible dark plumbeous, sometimes a horny brown; irides varying from a pale umber or snuffy brown to dark brown" (*Hume*). Total length 5·8 inches, culmen 0·65, wing 2·95, tail 2·6, tarsus 0·65.

*Adult female.* Similar to the male in colour. Total length 5·7 inches, culmen 0·65, wing 2·75, tail 2·6, tarsus 0·65.

The Bristle-backed Bulbul is found in Java, Sumatra, Borneo, and the Malayan peninsula, ranging into the extreme southern portion of Tenasserim.

| | | |
|---|---|---|
| *a*. ♂ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *b*, *c*. Ad. sk. | Malacca. | India Museum. |
| *d*. Ad. sk. | Java. | Purchased. |
| *e*, *f*. ♂, *g*. ♀ ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *h*. Ad. st. | Borneo. | Purchased. |
| *i*. ♀ ad. sk. | Sarawak. | A. R. Wallace, Esq. [C.]. |
| *k*. ♂ ad. sk. | Sarawak. | Henry Everett, Esq. [C.]. |
| *l*. ♂ ad. sk. | Tagora, Sarawak, May 1875. | Alfred Everett, Esq. [C.]. |

## 14. ALCURUS.

Type.

Alcurus, *Hodgs. in Gray's Zool. Misc.* p. 83 (1844, *descr. nullâ*), *undè* ..... A. striatus.
Alcurus, *Blyth, J. A. S. Beng.* xiv. p. 570 (1845) ..... A. striatus.

Head of *Alcurus striatus*.

*Range*. Eastern Himalayas, ranging into the Burmese and Tenasserim hills.

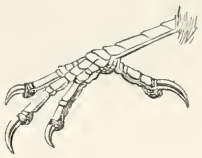
### 1. Alcurus striatus.

Ixos nipalensis, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pl. 189. fig. 4 (no. 343), et pl. 200.
Alcurus nipalensis, *Hodgs. in Gray's Zool. Misc.* p. 83 (*descr. nullâ*).
Trichophorus striatus, *Blyth, J. A. S. Beng.* xi. p. 184 (1842, *descr. princeps*); *Bp. Consp.* i. p. 262.
Hæmatornis striatus, *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 89.
Alcurus striatus, *Blyth, J. A. S. Beng.* xiv. p. 570; *Jerd. B. Ind.* ii. p. 81; *Wald. in Blyth B. Burm.* p. 134; *Hume & Davison, Str. F.* 1878, p. 299, 1879, p. 98.
Pycnonotus striatus, *Gray, Gen. B.* i. p. 237; *id. Hand-l. B.* i. p. 270, no. 3954.
Criniger striatus, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 253.

*Adult*. General colour above dark olive-green, the feathers distinctly streaked with yellowish white down their centres; head

strongly crested; lower back, rump, and upper tail-coverts brighter and more olive-yellow than the back, the central streaks not so pronounced; lesser and median wing-coverts like the back, and streaked in the same manner; greater coverts and primary-coverts dull olive-greenish; quills dark brown, olive-yellow externally; tail-feathers dark brown, olive-yellow for the greater part of the outer web, and pale yellow along the inner web, the two outer feathers also tipped with pale yellow; lores and eyelid bright yellow; sides of face dusky or ashy black, spotted with yellowish white, the ear-coverts streaked with the latter colour; at the base of the lower mandible a spot of bright yellow; throat yellow, dotted with triangular spots of black on the sides and base; fore neck, chest, and breast ashy black, relieved by broad streaks of yellow or yellowish white occupying the centre of the feather; flanks and thighs olive-greenish, with the same central streaks as on the breast; lower abdomen and under tail-coverts bright yellow; under wing-coverts and axillaries, as well as the edge of the wing, bright yellow; quills dusky brown below, yellow along the inner web; "bill black; legs and feet very dark brown or deep plumbeous; iris deep red-brown" (*Hume*). Total length 9 inches, culmen 0·8, wing 4·3, tail 4, tarsus 0·7.

*Young.* Similar to the adult, but rather browner in colour, and the yellow on the underparts much paler.



Foot of *Alcurus striatus*.

The Striated Green Bulbul inhabits the forests of the Himalayas from about 7000 feet, as well as the hills of Burmah and Tenasserim.

| | | |
|---|---|---|
| *a, b, c.* Ad. sk. | Nepal. | B. H. Hodgson, Esq., 1845 [P.]. |
| *d, e.* Ad. sk. | Nepal. | B. H. Hodgson, Esq., 1859 [P.]. |
| *f, g.* Ad. sk. | Nepal (*B. H. Hodgson*). | India Museum [P.]. |
| *h.* Ad. sk. | Darjiling (*Pearson*). | India Museum [P.]. |

## 15. TRACHYCOMUS.

Trachycomus, *Cab. Mus. Hein.* Th. i. p. 109 (1850). . Type. T. ochrocephalus.

Head of *Trachycomus ochrocephalus*, to show pointed feathers of crown.

*Range.* From Southern Tenasserim, through the Malayan peninsula to Java, Sumatra, and Borneo.

### 1. Trachycomus ochrocephalus.

Yellow-crowned Thrush, *Brown, Illust. Zool.* p. 50, pl. 22.
Ceylonese Stare, *Lath. Gen. Syn.* ii. p. 11.
Turdus ochrocephalus, *Gm. Syst. Nat.* i. p. 821 (*ex Browne*); *Horsf. Trans. Linn. Soc.* xiii. p. 149; *Temm. Pl. Col.* ii. pl. 136.
Sturnus zeylanicus, *Gm. Syst. Nat.* i. p. 804.
Trichophorus crispiceps, *Blyth, J. A. S. Beng.* xi. pp. 186, 204.
Criniger ochrocephalus, *Blyth, J. A. S. Beng.* xiv. p. 570; *id. Cat. B. Mus. As. Soc.* p. 208; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 253.
Microscelis ochrocephalus, *Gray, Gen. B.* i. p. 235; *id. Hand-l. B.* i. p. 268, no. 3922.
Criniger crispiceps, *Gray, Gen. B.* i. p. 236.
Pycnonotus ochrocephalus, *Bp. Consp.* i. p. 263.
Trachycomus ochrocephalus, *Cab. Mus. Hein.* Th. i. p. 109; *Moore, P. Z. S.* 1854, p. 279; *Hume, Str. F.* 1873, p. 455; *Blyth & Wald. B. Burm.* p. 133; *Salvad. Ucc. Born.* p. 196; *Sharpe, Ibis*, 1876, p. 38; *Hume & Davis. Str. F.* 1878, p. 300; *Hume, Str. F.* 1879, pp. 61, 98; *Sharpe, Ibis*, 1879, p. 256; *id. P. Z. S.* 1879, p. 247; *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 218.
Alcurus ochrocephalus, *Wald. Ibis*, 1872, p. 379; *Tweedd. Ibis*, 1877, p. 306.

*Adult female* (Malacca; A. R. Wallace). General colour above earthy brown, the feathers washed with grey near their ends, and all streaked down the centre with conspicuous white shaft-lines, the latter feature becoming more indistinct on the lower back and scarcely perceptible on the rump-feathers, which are full and fluffy, and slightly washed with yellowish olive; upper tail-coverts like the back, but more plainly edged with yellowish olive, and having pale shaft-streaks; tail-feathers dull yellowish olive, browner on

the inner webs; lesser and median wing-coverts like the back, but strongly washed with ashy grey, the shaft-lines not very distinct; greater coverts, primary-coverts, and quills brown, externally washed with olive-yellow; forehead and crown of head deep straw-yellow, brighter on the former, the feathers crisp and velvety in texture; the occipital plumes, nape, and hind neck ashy brown, with very conspicuous white shaft-streaks; ear-coverts also brown, with dull whitish centres; lores black; behind the eye a bare space; eyelid, a streak running from the base of the lores below the eye, and another one surmounting the cheeks, to which it is parallel, deep straw-yellow; cheeks black; throat dull white; lower throat, breast, and sides of body brown, washed with ashy grey, and having distinct white shaft-streaks, the latter less strongly marked on the sides of the body, which are paler and slightly washed with olive; centre of body whity brown; thighs deep fawn-colour; under tail-coverts light fawn-brown, washed with olive-yellow, and having shaft-lines of dull white; axillaries light brown like the flanks; under wing-coverts pale ashy brown, strongly washed with olive-yellow; quills dusky brown below, pale yellow along the inner webs; "bill black; legs and feet dark horny brown or black; irides brown, pale or litharge red" (*Davison*). Total length 9·5 inches, culmen 0·9, wing 4·35, tail 4, tarsus 1.

*Adult male* (West Java; Wallace). Similar to the female, but larger. Total length 11 inches, culmen 0·95, wing 4·95, tail 4·8, tarsus 1.

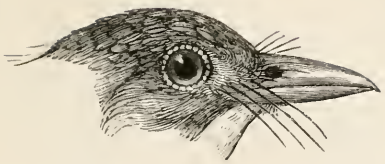
The Yellow-crowned Bulbul is found in Java, Sumatra, and Borneo, and ranges through the Malayan peninsula to the southernmost districts of Tenasserim, inhabiting the scrub and jungle rather than the thick forests.

| | | |
|---|---|---|
| *a*. Ad. sk. | Tenasserim (*Helfer*), | India Museum. |
| *b*. ♀ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *c*. Ad. sk. | Penang (*Dr. Cantor*). | India Museum. |
| *d*, *e*. Ad. sk. | Malacca (*Cantor*). | India Museum. |
| *f*. Ad. st. | Malacca. | Purchased. |
| *g*. Ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *h*. ♂ ad. sk. | Siedjounjong, Sumatra (*C. Bock*). | Lieut. R. G. Wardlaw Ramsay. |
| *i*. ♂ ad. sk. | West Java. | A. R. Wallace, Esq. [C.]. |
| *k*. Ad. sk. | West Java (*E. C. Buxton*). | F. Nicholson, Esq. [P.]. |
| *l*. ♂ ad. sk. | Sarawak. | A. R. Wallace, Esq. [C.]. |

## 16. XENOCICHLA.

Type.

Xenocichla, *Hartl. Orn. W.-Afr.* p. 86 (*descr. nullâ*).
Bleda, *Bp. Rev. et Mag. de Zool.* 1859 (*teste Hartl.*).
Xenocichla, *Cass. Pr. Philad. Acad.* 1859, p. 44 (*ex Hartl.*) ..... X. syndactyla.
Pyrrhurus, *Cass. t. c.* p. 46 (1859) ..... X. scandens.
Bæopogon, *Heine, J. f. O.* 1860, p. 139 ..... X. indicator.
Trichites, *Heine, t. c.* p. 139 ..... X serina.



Head of *Xenocichla syndactyla*.

*Range.* Confined to the Ethiopian Region.

*Key to the Species.*

*a*. Tail uniform, or having a narrow fringe of yellow at the tip of the inner web of the outer feathers; no yellow spot at the tip of the tail.
  *a'*. Upper tail-coverts like the back and like the tail, generally olive-green or brown.
    *a''*. Bill blackish or blackish brown.
      *a'''*. Throat and under surface generally brilliant golden yellow, as also the lores, cheeks, eyelids, and sides of face generally; colour above olive-yellow . *icterica*, p. 96.
      *b'''*. Throat yellow; remainder of under surface of body olive-greenish or brown, greyish on the breast, the yellow confined to the throat in strong contrast to the breast; upper surface brown, as also are the tail and wings, which are not externally olive-green ..... *flavicollis*, p. 97. / *flavigula*, p. 98.
      *c'''*. Throat yellow, as also the centre of the breast; general colour olive-green above, the head more dusky; under surface yellow, with olive-green sides; under wing-coverts olive-green; quill-lining buff..... *olivacea*, p. 98.
      *d'''*. Throat grey, as also the entire head; general colour olive-green, lighter below..... *tephrolæma*, p. 98.
      *e'''*. Throat white.
        $a^4$. Under wing-coverts fawn-colour; head not distinctly capped ..... *simplex*, p. 99.
        $b^4$. Under wing-coverts olive-yellowish or yellowish white; head ashy grey, forming a cap; breast and abdomen white, streaked with yellow; under tail-coverts brown, washed with olive..... *flavistriata*, p. 100
    *b''*. Bill reddish brown; general colour yellowish olive; under surface bright yellow, greenish on the flanks..... *serina*, p. 100.

*b'*. Upper tail-coverts reddish, contrasting with the back, but resembling the tail, which is reddish brown or chestnut.
*c''*. Larger; wing 3·65–4·45 inches.
*f'''*. Throat yellow, as also the rest of the under surface; loral spot yellow.... *syndactyla*, p. 101.
*g'''*. Throat white or buffy white; breast yellowish white, washed with brown on the chest and flanks; head a little greyer than the back, which is pale olivaceous ..... *scandens*, p. 102.
*d''*. Smaller; wing 2·7 inches: throat white; head greyish, contrasting with the dark olive-green back ..... *albigularis*, p. 103.
*b*. Tail with the outer feathers white, tipped with brown ..... *indicator*, p. 103.
*c*. Tail with the outer feathers broadly tipped with white, the basal half with brown..... *leucopleura*, p. 104.
*d*. Tail with large yellow spots on the inner webs of the outer feathers.
*c'*. Loral spot yellow; head uniform with the back, which is dark olive-green..... *notata*, p. 105.
*d'*. Loral spot white; head grey, contrasting with the olive-green back ..... *canicapilla*, p. 105.

### 1. Xenocichla icterica.

Criniger ictericus, *Strickl. Ann. Nat. Hist.* 1844, xiii. p. 411; *Gray, Gen. B.* i. p. 236; *Kelaart, Prodr. Cat.* p. 123; *Layard, Ann. Nat. Hist.* 1854, (2) xiii. p. 124; *Jerdon, B. Ind.* ii. p. 82; *Gray, Hand-l. B.* i. p. 274, no. 4023; *Holdsw. P. Z. S.* 1872, p. 450; *Hume, Nest & Eggs*, p. 282; *Legge, Ibis*, 1874, p. 20, 1875, p. 396; *Bourd. Str. F.* 1876, p. 800; *Legge, B. Ceylon*, p. 472; *Fairb. Str. F.* 1877, p. 405; *Hume, Str. F.* 1879, p. 61.
Trichas icterica, *Cab. Arch. f. Naturg.* 1847, p. 349.
Pycnonotus ictericus, *Blyth, J. A. S. Beng.* 1844, xiv. p. 570.
Hemixus icterica, *Blyth, Cat. B. Mus. As. Soc.* p. 207; *H. & M. Cat. B. Mus. E.I. Co.* i. p. 250; *Bp. Consp.* i. p. 261.

*Adult*. General colour above olive-yellow, the wing-coverts like the back; quills dark brown, externally olive-yellow like the back, the innermost secondaries almost entirely of the latter colour; tail-feathers dull olive-yellow, dusky along the inner webs and towards the tips; lores, a narrow eyebrow, and feathers round the eye bright yellow; ear-coverts yellow, slightly shaded with olive; cheeks and under surface of body bright yellow, washed with olive on the sides of the breast; under wing-coverts and axillaries bright yellow; quills light brown below, yellow along the inner webs; "bill black; legs and feet bluish leaden or dusky slatish; iris red or light red" (*Legge*). Total length 7·4 inches, culmen 0·75, wing 3·45, tail 3, tarsus 0·8.

*Obs*. The female, according to Capt. Legge, is a little smaller, and

has the yellow in front of the eye confined to the lores; the under surface slightly duller, and the face duskier than in the male.

The Yellow-browed Bulbul is found in the forests of Ceylon and Southern India, not ranging higher than Bombay.

| | | |
|---|---|---|
| *a*, *b*, *c*. Ad. sk. | Malabar. | Purchased. |
| *d*. Ad. sk. | Malabar. | Dr. Jerdon [P.]. |
| *e*. Ad. sk. | Coorg. | India Museum. |
| *f*, *g*. ♀ ad. sk. | Mynall, Travancore, Oct. 1878. | F. W. Bourdillon, Esq. [C.]. |
| *h*. ♀ ad. sk. | Mynall, Nov. 1878. | F. W. Bourdillon, Esq. [C.]. |
| *i*. ♀ ad. sk. | Mynall, Dec. 1878. | F. W. Bourdillon, Esq. [C.]. |
| *k*. Ad. sk. | Ceylon (*Chapman*). | Marquis of Tweeddale [P.]. |
| *l*. Ad. sk. | Ceylon. | Hugh Cuming, Esq. [C.]. |
| *m*. Ad. sk. | Ceylon. | E. L. Layard, Esq. [C.]. |
| *n*. Ad. sk. | Nuwara Eliya, Ceylon. | Mr. E. Boate [C.]. |

## 2. Xenocichla flavicollis.

Hæmatornis flavicollis, *Swains. B. W. Afr.* i. p. 259.
Pycnonotus flavicollis, *Gray, Gen. B.* i. p. 237.
Ixus flavicollis, *Hartl. J. f. O.* 1854, p. 26; *Bp. Consp.* i. p. 266.
Trichophorus flavicollis, *Hartl. Orn. W.-Afr.* p. 85; *id. J. f. O.* 1861, p. 165.
Criniger flavicollis, *Sharpe, Cat. Afr. B.* p. 22; *Gray, Hand-l. B.* i. p. 273, no. 4011.

*Adult.* General colour above dark olive-brown with a distinct greenish shade; the head darker brown than the back, forming an indistinct cap; the feathers of the crown edged with dark grey, which gives them a scaly appearance; wing-coverts like the back, the quills brown, externally olive, the primaries edged with clearer olive than the rest of the wing; tail-feathers lighter brown, edged with olive towards the base of the feathers; ear-coverts, lores, and cheeks dark brown, the lores and cheeks slightly washed with grey; throat bright yellow; remainder of under surface of body dark ashy washed with olive, the centre of the body lighter; feathers of the fore neck adjoining the yellow throat with white shafts, producing a somewhat streaked appearance; under tail-coverts dark olive-brown, with whitish edges and tips; under wing-coverts and axillaries dull fawn-brown, washed with olive-yellow on the edge of the wing; quills dusky brown below, fawn-brown along the edge of the inner web. Total length 9·5 inches, culmen 0·95, wing 4·7, tail 4·5, tarsus 1·05.

The Yellow-throated Bulbul inhabits the forests of Western Africa, from Senegambia to Sierra Leone.

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|---|---|---|
| *a*. Ad. st. | Senegambia. | Governor Rendall [P.]. |
| *b*, *c*. Ad. sk. | River Gambia. | R. B. Sharpe, Esq. |
| *d*. Ad. sk. | West Africa. | J. Gould, Esq. [P.]. |

### 3. Xenocichla flavigula.

Trichophorus flavigula, *Cab. Orn. Centralbl.* 1880, p. 174.
Trichophorus flavigularis, *Hartl. Abhandl. nat. Ver. Bremen*, vii. pp. 93, 127.

Very similar to *X. flavicollis* in size and coloration, and rather to be looked upon as a variety of the latter. The greatest difference is to be seen in the pale yellow of the throat, which in *X. flavicollis* is much more lively and extends further down on the fore neck. The upper parts are more tinged with greenish, the under parts paler and lighter coloured, with the middle of the abdomen white; "bill blackish; iris pearl-colour" (*Emin Bey*). (*Cabanis, l. c.*)

Schütt's Yellow-throated Bulbul replaces *X. flavicollis* in Angola, and occurs, according to Dr. Hartlaub, in the Upper Nile region, where a specimen was procured by Emin Bey, at Magungo, 2° 14′ north of the equator.

### 4. Xenocichla olivacea. (Plate VII. fig. 2.)

Trichophorus olivaceus, *Swains. B. W. Afr.* i. p. 264; *Bp. Consp.* i. p. 262; *Hartl. Orn. W.-Afr.* p. 82.
Criniger olivaceus, *Gray, Gen. B.* i. p. 236; *Finsch, J. f. O.* 1867, p. 22; *Gray, Hand-l. B.* i. p. 274, no. 4025.

*Adult.* General colour above olive-green, of a slightly yellowish cast, the wings a little duller olive than the back; quills dusky brown, externally like the back, the primaries rather yellower on the outer web; tail olive-brown, greener on the edges of the feathers; crown of head darker than the rest of the upper surface, being dark slaty brown washed with olive; lores, feathers round the eye, and a faintly indicated superciliary line greyish white; ear-coverts dusky brown with yellow shaft-lines; cheeks and throat yellow; remainder of under surface of body olive-green like the back, yellow in the centre of the body and on the under tail-coverts; under wing-coverts and axillaries like the breast; quills dusky brown below, fulvescent along the inner web. Total length 6·6 inches, culmen 0·75, wing 3·2, tail 2·9, tarsus 0·8.

*Obs.* Mr. Salvin very kindly showed me the type of Swainson's *Trichophorus olivaceus*, with which one of the Fantee birds in the Museum agrees perfectly. The other specimen, however, perhaps a male, has a darker head, of a dusky brown, only very faintly tinged with olive: in this specimen also the ear-coverts are darker dusky brown, narrowly streaked with yellow.

The Yellow-throated Bulbul is found in the forests of Western Africa from Senegambia to the Gold Coast.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | Fantee (*Aubinn*). | R. B. Sharpe, Esq. |

### 5. Xenocichla tephrolæma.

Trichophorus tephrolæmus, *Gray, Ann. Nat. Hist.* (3) x. p. 444 (1862).

Criniger tephrolæmus, *Gray, Hand-l. B.* i. p. 273, no. 4012; *Sharpe, P. Z. S.* 1871, p. 615; *Reichen. J. f. O.* 1875, p. 49.

*Adult* (type of species). General colour above olive-green of a slightly yellowish cast; wing-coverts like the back, the quills dark brown, externally olive-green like the back, the secondaries almost entirely olive-green; tail-feathers olive-green, rather browner on the inner web, the outer ones with a narrow edging of yellow at the tip of the inner web; head and hind neck, sides of face, throat, and fore neck clear slaty grey, a little lighter on the throat, the lores being greyish white; remainder of under surface of body olive-yellow, greener on the sides of the body, the under tail-coverts rather clearer yellow; under wing-coverts and axillaries yellow; quills dusky brown below, yellowish buff along the inner web. Total length 7·3 inches, culmen 0·75, wing 3·35, tail 3·1, tarsus 0·9.

The Ashy-throated Bulbul is only known from the Cameroons Mountains in Western Africa.

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|---|---|---|---|
| *a.* Ad. sk. | Cameroons Mountains, 7000 feet. | Major R. Burton [P.]. (Type of species.) |

### 6. Xenocichla simplex.

Trichophorus simplex, *Hartl. J. f. O.* 1855, iii. p. 356 (*ex Temm.*); *id. Orn. W.-Afr.* p. 83; *Cass. Pr. Philad. Acad.* 1859, p. 44; *Heine, J. f. O.* 1860, p. 138; *Hartl. J. f. O.* 1861, p. 163.
Criniger simplex, *Finsch, J. f. O.* 1867, p. 28; *Gray, Hand-l. B.* i. p. 273, no. 4006; *Sharpe, Cat. Afr. B.* p. 22; *Reichen. J. f. O.* 1875, p. 35; *Sharpe & Bouvier, Bull. Soc. Zool. France,* 1876, p. 44; *Reichen. J. f. O.* 1877, p. 25; *Nicholson, P. Z. S.* 1878, p. 129.
Criniger palpebrosus, *Finsch, J. f. O.* 1867, p. 28 (*ex Heugl. MS.*).
Andropadus (Criniger) marchei, *Oustalet, Nouv. Arch. du Mus.* (2) ii. *Bull.* 1879, p. 101 (type examined).
Andropadus marchei, *Reichen. & Schalow, J. f. O.* 1879, p. 432.

*Adult.* General colour above dark brown, slightly olive; wings brown like the back, washed with olive on the coverts; tail-feathers brown, shaded with olive on the edges, the outer feathers edged with white at the tips of the inner webs; lores blackish, above and below the eye a small white line, confined to the eyelid; ear-coverts dusky brown, with minute shaft-lines of whitish; cheeks and throat white; rest of under surface of body pale brown, the sides of the breast dull olivaceous; centre of the abdomen yellowish white, deepening into brownish white on the under tail-coverts; under wing-coverts and axillaries fawn-colour; quills dull brown, reddish along the inner web; "bill black; feet leaden grey; iris chestnut-brown" (*Reichenow*). Total length 7·7 inches, culmen 0·8, wing 3·95, tail 3·75, tarsus 0·95.

Marche's Bulbul inhabits the forests of Western Africa, from the Gold Coast to the Congo.

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|---|---|---|
| *a.* ♀ ad. sk. | Landana, Congo. | MM. Lucan & Petit [C.]. |
| *b.* Ad. sk. | Gaboon (*R. B. N. Walker*). | R. B. Sharpe, Esq. |
| *c.* Ad. sk. | Gaboon (*Du Chaillu*). | R. B. Sharpe, Esq. |

| | | |
|---|---|---|
| *d.* Ad. sk. | Gaboon (*Laglaize*). | Paris Museum [P.]. |
| *e–g.* Ad. sk. | Abeokuta. | F. Nicholson, Esq. |
| *h.* Ad. sk. | Ashantee. | J. Gould, Esq. [P.]. |
| *i.* Ad. sk. | Fantee (*Aubinn*). | R. B. Sharpe, Esq. |
| *k.* Ad. sk. | Denkera. | R. B. Sharpe, Esq. [P.]. |
| *l.* Ad. sk. | Mampon, Aug. 1872 (*H. F. Blissett*). | R. B. Sharpe, Esq. [P.]. |

### 7. Xenocichla flavistriata.

Andropadus flavostriatus, *Sharpe, Ibis*, 1876, p. 53; *id. ed. Layard's B. S. Afr.* p. 205; *Ayres, Ibis*, 1876, p. 427.

*Adult female* (type of species). General colour above olive-brown, with somewhat of a yellowish tinge; head dusky grey, the lores and feathers round the eye greyish white; ear-coverts grey, with narrow white shaft-streaks; cheeks greyish white; throat pure white; rest of under surface whitish, the feathers edged with greenish yellow, causing the breast to appear streaked with that colour; sides of the body dull greenish olive, deepening on the lower flanks and under tail-coverts; thighs greenish olive; under wing-coverts dull yellow, washed with brown near the edge of the wing; scapulars and least wing-coverts coloured like the back; rest of the wing brown, all the feathers externally washed with olive, inclining to golden brown on the outer webs of the secondaries; upper tail-coverts and tail brown, strongly washed with olive-green: "bill, tarsi, and feet ash-colour; iris ashy hazel" (*F. A. Barratt*). Total length 7·4 inches, culmen 0·75, wing 3·45, tail 3·5, tarsus 1.

*Adult male.* Not to be distinguished from the female; iris tawny, bill dusky, tarsi and feet ashy (*T. Ayres*). Total length 7·9 inches, culmen 0·85, wing 3·85, tail 3·6, tarsus 0·95.

Barratt's Bulbul is only known from South-eastern Africa, where it ranges from the Zambesi to the Transvaal.

| | | |
|---|---|---|
| *a.* Ad. sk. | Shire River, Zambesi. | Dr. Kirk [C.]. |
| *b.* ♀ ad. sk. | Macamae, July 1, 1874. | F. A. Barratt, Esq. [C.]. (Type of species.) |
| *c.* ♀ ad. sk. | Macamae. | F. A. Barratt, Esq. [C.]. |
| *d.* ♂ ad. sk. | Macamae, Oct. 9, 1874 (*T. Ayres*). | J. H. Gurney, Esq. [P.]. |

### 8. Xenocichla serina.

Criniger serinus, *J. & E. Verr. J. f. O.* iii. 1855, p. 105; *Finsch, J. f. O.* 1867, p. 33; *Sharpe, Ibis*, 1869, p. 382; *Gray, Hand-l. B.* i. p. 275, no. 4040; *Shelley & Buckley, Ibis*, 1872, p. 291; *Sharpe & Bouvier, Bull. Soc. Zool. France*, 1877, p. 478.

Criniger xanthogaster, *Cass. Pr. Philad. Acad.* 1855, p. 327; *Bocage, Jorn. Lisb.* iii. p. 272 (1871); *Gadow, J. f. O.* 1876, p. 419.

Trichophorus xanthogaster, *Hartl. Orn. W.-Afr.* p. 83; *id. J. f. O.* 1861, p. 164.

Hemixus serinus, *Cass. Pr. Philad. Acad.* 1859, p. 45; *Heine, J. f. O.* 1860, p. 139.

Trichites serinus, *Heine, J. f. O.* 1860, p. 140.

*Adult.* General colour yellowish olive, the hind neck and mantle

with yellowish shaft-lines; wing-coverts like the back, the quills brown, externally yellowish olive like the back, the secondaries almost entirely of the latter colour; tail-feathers olive-brown, olive-yellow on the outer webs; lores dull whitish; ear-coverts olive, with whitish shaft-lines; cheeks and throat dull white, washed with yellow; fore neck and sides of body olive-yellow, the centre of the breast and abdomen rich yellow, deepening into fulvous on the under tail-coverts; under wing-coverts and axillaries bright yellow; quills brown, yellow along the edge of the inner web; bill reddish brown. Total length 7·5 inches, culmen 0·75, wing 3·5, tail 3, tarsus 0·8.

*Obs.* Some specimens have tolerably distinct yellowish shaft-streaks on the breast-feathers, and the intensity of the under tail-coverts varies with individuals, deepening in some almost to fawn-colour. A skin from Ashantee appears to be immature, as it has some rufous-brown feathers on the nape, and is altogether duller in colour.

The Red-billed Bulbul inhabits the forests of West Africa, from the Gold Coast to the Congo.

| | | |
|---|---|---|
| *a.* Ad. sk. | Gaboon. | M. Verreaux. (Type of species.) |
| *b.* Ad. sk. | Gaboon. | M. Verreaux. |
| *c.* Ad. sk. | Gaboon (*Du Chaillu*). | R. B. Sharpe, Esq. |
| *d.* Juv. sk. | Ashantee. | J. Gould, Esq. |
| *e.* Ad. sk. | Fantee (*Aubinn*). | R. B. Sharpe, Esq. |
| *f.* Ad. sk. | Fantee. | A. Swanzy, Esq. |

### 9. Xenocichla syndactyla.

Dasycephala syndactyla, *Swains. B. W. Afr.* i. p. 231; *id. Classif. B.* ii. p. 229; *Gray, Gen. B.* i. p. 208.
Trichophorus syndactylus, *Hartl. J. f. O.* 1854, p. 25; *id. Orn. W.-Afr.* pp. 86, 272.
Bleda syndactyla, *Bp. Rev. et Mag. Zool.* 1857 (*teste Hartlaub*).
Xenocichla syndactylus, *Cass. Pr. Philad. Acad.* 1859, p. 44; *Heine, J. f. O.* 1860, p. 138; *Hartl. J. f. O.* 1861, p. 165.
Criniger syndactylus, *Finsch, J. f. O.* 1867, p. 27; *Gray, Hand-l. B.* i. p. 275, no. 4042; *Sharpe, Ibis*, 1872, p. 68.

*Adult male.* General colour dark olive-green, the head darker and of a more olive-green shade, the lower back more reddish; upper tail-coverts and tail deep chestnut; wing-coverts like the back, the greater series more dusky brown, externally olive-green, much paler on the outer edge of the primaries; a pale yellow loral spot; eyebrow and a few superciliary feathers yellowish white, forming an indistinct eyebrow; cheeks blackish, slightly washed with olive; ear-coverts dusky olive-green; moustachial line, throat, and centre of body yellow, the sides of the breast and flanks olive-green, darker on the former; under wing-coverts and axillaries dull yellow; quills dusky brown below, ashy along the inner web. Total length 8·6 inches, culmen 1·05, wing 4·45, tail 3·95, tarsus 1·05.

A bird from Fantee is a little clearer brown on the wing, the

latter measuring 3·65 inches. A second specimen has the wing much more rufous, the primary-coverts and secondaries, as well as the outer webs of the secondaries, being rufous. This latter colour may be due to sexual differences, as the bird is apparently a female, measuring so much less than the other birds. Total length 8 inches, culmen 0·9, tail 3·45, tarsus 0·95.

The Chestnut-tailed Bulbul is found in the forests of West Africa, from Senegambia to Gaboon.

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|---|---|---|
| *a*. ♂ ad. sk. | Gaboon (*DuChaillu*). | R. B. Sharpe, Esq. |
| *b*. Ad. sk. | Gaboon (*DuChaillu*). | R. B. Sharpe, Esq. |
| *c*. Ad. sk. | Fantee (*Governor Ussher*). | R. B. Sharpe, Esq. |
| *d*. Ad. sk. | Fantee (*Governor Ussher*). | R. B. Sharpe, Esq. |

### 10. Xenocichla scandens.

Phyllastrephus scandens, *Swains. B. W. Afr.* i. p. 270, pl. 30; *Gray, Gen. B.* i. p. 238; *Bp. Consp.* i. p. 260; *Hartl. Orn. W.-Afr.* p. 89.
Trichophorus pallescens, *Hartl. Orn. W.-Afr.* p. 85.
Pyrrhurus scandens, *Cass. Pr. Philad. Acad.* 1859, p. 46; *Finsch, J. f. O.* 1867, p. 8.
Pyrrhurus pallescens, *Cass. Pr. Philad. Acad.* 1859, p. 46; *Heine, J. f. O.* 1860, p. 46; *Finsch, J. f. O.* 1867, p. 8.
Xenocichla pallescens, *Hartl. J. f. O.* 1861, p. 165.
Criniger pallescens, *Finsch, J. f. O.* 1867, p. 20; *Gray, Hand-l. B.* i. p. 275, no. 4037.
Criniger scandens, *Gray, Hand-l. B.* i. p. 275, no. 4038; *Sharpe, Ibis*, 1870, p. 52; *id. Cat. Afr. B.* p. 22.

*Adult*. General colour above pale olive with an ashy cast; the crown of the head obscure ashy grey; rump washed with fawn-colour; upper tail-coverts fawn-colour or pale cinnamon, the tail being also of the latter colour, but a little darker; least and median wing-coverts like the back, the greater series and the quills brown, with pale fawn-brown edges, the inner secondaries entirely fawn-brown; lores greyish white; sides of face grey, the cheeks rather paler; throat dull white, fading off on to the breast, which, with the rest of the under surface of the body, is light yellowish brown, washed with yellow on the middle of the abdomen, and deepening into fawn-colour on the under tail-coverts, the sides of the breast washed with olive; under wing-coverts and axillaries fawn-buff; quills dark brown below, fawn-buff along the inner web; bill horn-brown, yellowish brown along the edge of the upper mandible, the lower mandible being yellowish; feet dark horn-brown, the claws paler and more yellowish brown. Total length 9·6 inches, culmen 0·8, wing 4·45, tail 4·2, tarsus 1·1.

Some differences exist in the size of specimens, one from Fantee, presented by Mr. Andrew Swanzy, measures 4 inches in the wing and 1 inch in the tarsus.

The Pale Bulbul is only known from West Africa: where it has been met with in the forests of Senegambia down to those of Denkera, on the Gold Coast.

| | | |
|---|---|---|
| *a*. Ad. sk, | River Gambia. | Purchased. |

| | | |
|---|---|---|
| *b.* Ad. sk. | River Gambia. | Purchased. |
| *c, d.* Ad. sk. | Denkera, Fantee. | Andrew Swanzy, Esq. [P.]. |

### 11. Xenocichla albigularis. (Plate VII. fig. 1.)

*Adult.* General colour above dull olive-green, the wing-coverts slightly more olive-brown than the back; quills dusky brown, externally olive-green, more yellow on the outer webs of the primaries; upper tail-coverts and tail brown, washed with olive on the outer webs; head light slaty grey, faintly washed with olive; lores and feathers round the eye, as well as a faint indication of an eyebrow, greyish white; ear-coverts light slaty grey, with whitish shaft-lines; checks greyish white; throat white; under surface of body pale yellow, the breast washed with grey, the sides washed with olive-green; under wing-coverts and axillaries light yellow, washed with olive near the edge of the wing; quills dull brown below, yellowish buff along the edge of the inner web. Total length 5·8 inches, culmen 0·7, wing 2·7, tail 2·4, tarsus 0·75.

Ussher's Bulbul is as yet only known from the forests in the interior of the Gold Coast.

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|---|---|---|
| *a.* Ad. sk. | Fantee (*Governor Ussher*). | R. B. Sharpe, Esq. |

### 12. Xenocichla indicator.

Criniger indicator, *J. & E. Verr. J. f. O.* 1855, vol. iii. p. 105; *Finsch, J. f. O.* 1867, p. 33; *Sharpe, Ibis*, 1869, p. 187; *Gray, Hand-l. B.* i. p. 274, no. 4035; *Sharpe, Cat. Afr. B.* p. 22.
Trichophorus leucurus, *Cass. Pr. Philad. Acad.* 1855, p. 328.
Trichophorus indicator, *Hartl. Orn. W.-Afr.* p. 84; *id. J. f. O.* 1861, p. 165.
Hemixus indicator, *Cass. Pr. Philad. Acad.* 1859, p. 45.
Bæopogon indicator, *Heine, J. f. O.* 1860, p. 139.

*Adult.* General colour above dull olive-green, the wing-coverts like the back, the quills dark brown, externally olive-green, the secondaries almost entirely of the latter colour; four centre tail-feathers dark brown, the rest dark brown, excepting on the outer web, which is more than half yellowish white, brown only at the base and at the tip; the three outer tail-feathers white, slightly washed with yellow, and having a blackish-brown spot at the tip, with an obscure basal mark of brown also; head olive-green, a little duller than the back; lores and sides of face dusky ash-grey, as also the throat and under surface of body; the fore neck, breast, and sides of the body washed with olive-yellow; ear-coverts also washed with olive-yellow, the shaft-streaks paler; lower abdomen and under tail-coverts brownish white; under wing-coverts and axillaries dull olive-yellow, light brown at the base; greater series light ashy brown, like the inner edge of the quills. Total length 8 inches, culmen 0·75, wing 3·9, tail 3, tarsus 0·8.

The Honey-Guide Bulbul inhabits the forests of West Africa, from the Gold Coast to Gaboon.

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|---|---|---|
| *a*. Ad. sk. | Gaboon. | M. Verreaux. |
| *b*. Ad. sk. | Ashantee. | J. Gould, Esq. |
| *c*. Ad. sk. | Fantee. | G. Lyall, Esq. [C.]. |
| *d*. Ad. sk. | Fantee (*Aubinn*). | R. B. Sharpe, Esq. |
| *e*. Ad. sk. | Fantee (*Governor Ussher*). | R. B. Sharpe, Esq. |
| *f*. Ad. sk. | Mampon, Aug. 1872 (*H. F. Blissett*). | R. B. Sharpe, Esq. |

### 13. Xenocichla leucopleura.

Phyllastrephus leucopleurus, *Cass. Pr. Philad. Acad.* 1855, p. 328; *Hartl. Orn. W.-Afr.* p. 89.
Trichophorus nivosus, *Hartl. J. f. O.* 1855, p. 356 (*ex Temm.*); *id. Orn. W.-Afr.* p. 84; *id. J. f. O.* 1861, p. 164.
Pyrrhurus leucopleurus, *Cass. Pr. Philad. Acad.* 1859, p. 47; *Heine, J. f. O.* 1860, p. 140; *Finsch, J. f. O.* 1867, p. 8.
Criniger leucopleurus, *Sharpe, Ibis*, 1869, p. 382; *Gray, Hand-l. B.* i. p. 275, no. 4039; *Sharpe & Bouvier, Bull. Soc. Zool. France*, 1877, p. 477; *Bocage, Orn. Angola*, p. 246.
Criniger nivosus, *Sharpe, Cat. Afr. B.* p. 22; *id. P. Z. S.* 1871, p. 609; *Reichen. J. f. O.* 1877, p. 25.

*Adult male.* General colour above dull brown, somewhat shaded with olive, the head a little more dingy brown than the back; feathers of the lower back very full and fluffy, the lateral ones yellowish at their tips, forming a more or less conspicuous patch at the sides of the rump; wings and tail brown, slightly olivaceous on the margins of the feathers; all but the two centre rectrices tipped with white, which increases largely towards the outer feathers; lores and feathers above the eye dull white; sides of face dusky brown, with whitish shaft-lines; cheeks ashy grey, with whitish shafts to the feathers; throat and chest dusky grey, the feathers margined with olive and having conspicuous white central streaks; rest of under surface of body pale yellow, more or less white in the centre of some of the feathers, especially the under tail-coverts; under wing-coverts and axillaries like the breast; quills dusky brown below, whitish at base of inner web, and shading into ashy along the edge of the latter. Total length 9·7 inches, culmen 0·95, wing 4·35, tail 4·35, tarsus 1.

*Young.* Is similar to the adult in colour, but much more fluffy in plumage, and rather browner on the upper surface.

The White-bellied Bulbul occurs in West Africa only, where it inhabits the forests from the Gambia to the Congo.

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|---|---|---|
| *a*. Ad. sk. | Cape Palmas. | F. Nicholson, Esq. [P.]. |
| *b*, *c*. Ad. sk. | Fantee (*Governor Ussher*). | R. B. Sharpe, Esq. |
| *d*. Ad. st. | Ashantee. | J. Gould, Esq. |
| *e*, *f*. Ad. sk. | Cameroons Mountains, Feb. 1871 (*A. Crossley*). | R. B. Sharpe, Esq. |
| *g*. Ad. sk. | Gaboon. | M. Verreaux. |
| *h*. Ad., *i*, *k*. Juv. sk. | Gaboon (*DuChaillu*). | R. B. Sharpe, Esq. |
| *l*. ♂ ad. sk. | Camma River (*DuChaillu*). | R. B. Sharpe, Esq. |
| *m*. Ad. st. | West Africa. | L. Fraser, Esq. |

### 14. Xenocichla notata.

Trichophorus notatus, *Cass. Pr. Philad. Acad.* 1856, p. 159; *Hartl. Orn. W.-Afr.* pp. 83, 272.
Xenocichla notata, *Cass. Pr. Philad. Acad.* 1859, p. 45; *id. Journ. Philad. Acad.* v. p. 182, pl. xxii. fig. 2; *Heine, J. f. O.* 1860, p. 139; *Hartl. J. f. O.* 1861, p. 165.
Criniger notatus, *Finsch, J. f. O.* 1867, p. 30; *Gray, Hand-l. B.* i. p. 273, no. 4007; *Sharpe, Cat. Afr. B.* p. 22; *Reichen. J. f. O.* 1876, p. 35; *Sharpe & Bonv. Bull. Soc. Zool. France*, 1876, p. 46; *Reichen. J. f. O.* 1877, p. 25.

*Adult.* General colour above olive-green, the head a little darker than the back; wing-coverts and quills brown, margined with the same colour as the back, a little lighter on the edge of the quills; tail-feathers olive-green, the four outer ones tipped with a yellow spot, smaller on the fourth feather, and confined to the inner web, becoming larger on the three outside ones; a large loral spot of yellow, very conspicuous; sides of face dark olive-green, the cheeks still darker, blackish, tinged with olive-green; entire under surface of body bright yellow, the sides of the chest dark olive-green, the flanks also washed with pale olive-green; under wing-coverts and axillaries yellow; quills brown below, yellow along the inner web; "bill blackish, below leaden grey; feet leaden grey, the soles dirty yellow; iris reddish brown" (*Reichenow*). Total length 7 inches, culmen 0·8, wing 3·45, tail 3·3, tarsus 1.

The Yellow-marked Bulbul is only known from the forests of West Africa, where it is met with from the Cameroons to the Congo.

| | | |
|---|---|---|
| *a*. Ad. sk. | Camma River, Gaboon. | P. B. DuChaillu, Esq. [C.]. |
| *b*. Ad. sk. | Gaboon (*DuChaillu*). | R. B. Sharpe, Esq. |
| *c*, *d*. Ad. sk. | Gaboon (*R. B. N. Walker*). | R. B. Sharpe, Esq. |

### 15. Xenocichla canicapilla.

Trichophorus canicapillus, *Hartl. Beitr. Orn. W.-Afr.* p. 24; *id. J. f. O.* 1854, p. 25; *id. Orn. W.-Afr.* p. 84.
Xenocichla canicapillus, *Cass. Pr. Philad. Acad.* 1859, p. 44.
Criniger canicapillus, *Finsch, J. f. O.* 1867, p. 31; *Gray, Hand-l. B.* i. p. 273, no. 4009; *Sharpe, Ibis*, 1872, p. 69.

*Adult.* General colour above olive-green, a little paler on the upper tail-coverts; wing-coverts like the back; quills dark brown, externally olive-green like the back; tail-feathers olive-green, the four outer ones having a yellow spot at their ends; head ashy grey, with a faint wash of olive on the nape; sides of face a little darker grey; lores hoary white; moustachial line, throat, and under surface of body bright yellow, paler on the throat; the sides of the chest and sides of the body greenish; the breast-feathers rather long and silky and having white bases; under wing-coverts and axillaries bright yellow; quills brown below, yellow along the inner web. Total length 8 inches, culmen 0·8, wing 3·6, tail 3·5, tarsus 0·95.

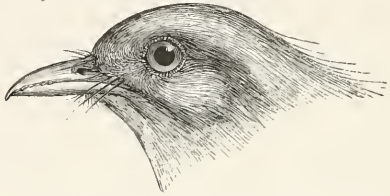
According to Dr. Hartlaub, the female is distinguished by a whiter throat.

The Grey-headed Bulbul is only found in West Africa, where it ranges from Senegambia to the Gold Coast.

| | | |
|---|---|---|
| *a*. Ad. st. | River Gambia. | Governor Rendall [C.]. |
| *b*, *c*. Ad. sk. | Fantee (*Governor Ussher*). | R. B. Sharpe, Esq. |
| *d*, *e*. Ad. sk. | Fantee (*Aubinn*). | R. B. Sharpe, Esq. |

## 17. ANDROPADUS.

| | Type. |
|---|---|
| Andropadus, *Swains. Faun. Bor.-Amer., Birds*, p. 485 (1831) | A. importunus. |
| Polyodon, *Lafr. Mag. de Zool.* 1832, *Oiseaux, texte to* pl. 4 | A. importunus. |



Head of *Andropadus importunus*, to show serrations in upper mandible.

*Range*. Confined to Africa.

*Key to the Species.*

*a*. With a moustachial streak of yellow in young and old birds ..... *latirostris*, p. 107.

*b*. With no yellow moustachial streak.

*a'*. Under tail-coverts olive or brown, with olive-yellowish edgings.

*a''*. Larger: wing 3·45 inches; feet dark brown; abdomen lighter than the breast; a faint indication of yellow lores ..... *importunus*, p. 108.

*b''*. Smaller: wing 2·8–3·0 inches; feet pale; abdomen yellower than the breast; no yellow on the lores, which are like the head ..... *virens*, p. 109. / *curvirostris*, p. 111.

*b'*. Under tail-coverts reddish brown; wings reddish ..... *virens* juv., p. 109.

*c'*. Under tail-coverts yellow.

*c''*. Throat clear yellow, like the rest of the abdomen and under tail-coverts, with only a slight shade of olive on the breast and flanks; under wing-coverts and inner lining of quills bright yellow ..... *oleaginus*, p. 111.

*d''*. Throat and breast shaded with olive, as also the sides of the body; centre of the abdomen and under tail-coverts yellow; under wing-coverts and inner lining of quills saffron-yellow ..... *flavescens*, p. 112.

### 1. Andropadus latirostris.

Andropadus latirostris, *Strickl. P. Z. S.* 1844, p. 100; *Allen & Thomps. Exp. Niger*, ii. p. 496; *Gray, Gen. B.* i. p. 236; *Bp. Consp.* i. p. 261; *Hartl. Orn. W.-Afr.* pp. 87, 272; *Cass. Pr. Philad. Acad.* 1859, p. 45; *Heine, J. f. O.* 1860, p. 140; *Hartl. J. f. O.* 1861, p. 166; *Gray, Hand-l. B.* i. p. 276, no. 4055; *Sharpe, Ibis*, 1870, p. 52; *id. Cat. Afr. B.* p. 22; *Reichen. J. f. O.* 1875, pp. 34, 49.

*Adult.* General colour above dull olive-greenish, much browner on the lower back, rump, and upper tail-coverts; wing-coverts slightly more olive-brown than the back, especially paler olive at the ends of the median and greater series; quills dark brown, externally more olive-brown, paler along the edge of the primaries, the secondaries rather more reddish brown; tail-feathers dark brown, with paler endings to the inner webs of the outer feathers; lores, feathers round the eyes, and cheeks olive-blackish, the ear-coverts rather paler olive-brown; on each side of the throat a yellow moustachial streak; throat and fore neck dusky olive: rest of under surface of body very pale yellowish olive, the sides of the body more dusky olivaceous, browner on the lower flanks and thighs; under tail-coverts pale brown, slightly washed with fawn-colour; under wing-coverts and axillaries pale yellowish fawn-colour; the quills brown below, ashy along their inner webs; "bill black, yellow on the edges of the upper mandible and at the base of the lower mandible; feet yellowish brown; iris dark" (*Reichenow* *). Total length 6·35 inches, culmen 0·6, wing 3·05, tail 2·85, tarsus 0·75.

*Young.* Similar to the adult, but a little more reddish brown on the wings, the centre of the breast and abdomen washed with fawn-buff; moustachial streak of yellow as distinct as in the adult. Total length 6·7 inches, culmen 0·55, wing 2·85, tail 2·7, tarsus 0·75.

*Obs.* The species with the yellow moustache must be called *A. latirostris* of Strickland, as the latter distinctly includes this feature as a character in the original description. He then proceeds:— "In two other specimens in which the sex is not indicated, the dimensions and plumage are the same, but the yellow streak on each side of the chin is wanting, and the lower mandible wants the serrations, and exhibits only a small subterminal notch. These are probably younger individuals." Mr. G. R. Gray has a specimen of *A. virens* in the Museum marked as if it were the type of *A. latirostris*; but this is clearly not the case, as it has not the yellow moustachial streak: it must therefore be one of the other specimens mentioned by Strickland, which he considers to be younger birds. The same view of the adults and young is taken by Dr. Hartlaub (Orn. Westafr. p. 87); but notwithstanding this weighty authority, I do not consider that his view of the case is correct. If any thing, the yellow-moustached bird will be the young; but at present I believe it to indicate a distinct species, in which both old and young birds will be

* These soft parts evidently indicate a young bird, perhaps that of *A. virens*.

found to have a yellow moustache, bordered by very dark cheeks; this latter is a very strong feature. I believe that the Museum contains both old and young—the immature birds throughout the dull-coloured *Andropadi* appearing to resemble the adults in general appearance, but always having paler bills and legs, and having also more or less reddish-brown wings. In all the specimens examined I have not yet found an absolute transition between the yellow-streaked birds and *A. virens*, although the moustache is often more plainly marked in some birds than it is in others. As, however, moustached birds with both black and light-coloured bills are represented in the series, I believe that it is right to admit *A. latirostris* as a distinct species.

The question of the typical specimen may now be considered settled, as in a recent acquisition of birds from Mr. T. C. Eyton's collection one of the skins is marked "original specimen."

The Moustached Bulbul is an inhabitant of the West-African forests, from the Gambia to the Congo.

| | | |
|---|---|---|
| *a*. Imm. sk. | Fantee (*Governor Ussher*). | R. B. Sharpe, Esq. |
| *b*. Ad., *c*, *d*. Juv. sk. | Fantee (*Aubinn*). | R. B. Sharpe, Esq. |
| *e*. Imm. sk. | Gaboon (*Du Chaillu*). | R. B. Sharpe, Esq. |
| *f*. Juv. sk. | Gaboon. | P. B. DuChaillu, Esq. [C.]. |
| *g*. Ad. sk. | Fernando Po (*L. Fraser*). | Eyton Collection. (Type of species.) |
| *h*. Imm. sk. | Landana, Congo. | MM. Lucan and Petit [C.]. |

## 2. Andropadus importunus.

L'Importun, *Levaill. Ois. d'Afr.* iii. p. 41, pl. 106. fig. 2.
Turdus importunus, *Vieill. N. Dict. d'Hist. Nat.* xx. p. 266 (*ex Levaill.*).
Turdus clamosus, *Steph. Gen. Zool.* xiii. p. 197 (*ex Levaill.*).
Polyodon importunus, *Lafr. Mag. de Zool.* 1832, *Ois.* pl. 4; *Less. Rev. Zool.* 1840, p. 136.
Andropadus familiaris, *Swains. Classif. B.* ii. p. 21.
Andropadus vociferus, *Swains. Classif. B.* ii. p. 228.
Trichophorus brachypodoides, *Jard. & Selby, Ill. Orn.* iii. pl. 128.
Andropadus importunus, *Gray, Gen. B.* i. p. 236; *Bp. Consp.* i. p. 261; *Cab. Mus. Hein.* Th. i. p. 112; *Gurney, Ibis*, 1862, p. 29; *Gray, Hand-l. B.* i. p. 276, no. 4053; *Sharpe, Cat. Afr. B.* p. 22; *Shelley, Ibis*, 1875, p. 75; *Sharpe, ed. Layard's B. S. Afr.* p. 204.
Criniger importunus, *Layard, B. S. Afr.* p. 137.

*Adult male.* General colour above olive-green, the head a little darker and more olive-brown; wing-coverts like the back; greater coverts and quills dusky brown, externally edged with the same olive-green as the back; a little yellower on the margin of the primaries; tail-feathers olive-brown, washed with olive-green on the margins; lores a little lighter olive; sides of face and ear-coverts slightly darker olive-brown, like the head; throat and under surface of body olive-yellowish, duller olive and greener on the breast, sides of body, thighs, and under tail-coverts; under wing-coverts and

axillaries yellow; quills dusky brown, yellow along the inner webs; "bill black; tarsi and feet dusky; iris tawny" (*T. Ayres*). Total length 7·1 inches, culmen 0·75, wing 3·45, tail 3·6, tarsus 0·9.

*Adult female.* Similar in plumage to the male: "bill black; legs horn-colour; iris very pale yellow" (*Shelley*); "iris pale green" (*T. Ayres*). Total length 7·7 inches, culmen 0·65, wing 3·35, tail 3·35, tarsus 0·9.

The Sombre Bulbul is found in the forests of South Africa, extending from the Kuysna district to Natal and the Eastern Transvaal.

| | | |
|---|---|---|
| *a, b.* ♂ ♀ ad. sk. | Knysna (*C. J. Andersson*). | R. B. Sharpe, Esq. |
| *c.* Ad. sk. | East London (*J. C. Rickard*). | R. B. Sharpe, Esq. |
| *d, e.* Ad. sk. | Kingwilliamstown. | Lieut. H. Trevelyan [P.]. |
| *f.* ♂ ad. sk. | Kingwilliamstown. | Lieut. H. Trevelyan [P.]. |
| *g.* Ad. sk. | Eland's Post (*T. C. Atmore*). | R. B. Sharpe, Esq. |
| *h.* ♂ ad. sk. | Natal. | Dr. Gueinzius [C.]. |
| *i.* Ad. sk. | Natal (*T. Ayres*). | J. H. Gurney, Esq. [P.]. |
| *k, l.* Ad. sk. | Lydenburg. | F. A. Barratt, Esq. [C.]. |
| *m.* ♂ ad. sk. | Macamac, Jan. 25, 1874 (*T. L. Ayres*). | J. H. Gurney, Esq. [P.]. |
| *n.* Ad. st. | South Africa. | Dr. Krauss. |

### 3. Andropadus virens.

Andropadus latirostris (juv.), *Strickl. P. Z. S.* 1844, p. 100; *Fraser, Zool. Typ.* pl. 35.

Andropadus virens, *Cass. Pr. Philad. Acad.* 1857, p. 34; *Hartl. Orn. W.-Afr.* p. 264; *Cass. Pr. Philad. Acad.* 1859, p. 46; *Heine, J. f. O.* 1860, p. 140; *Hartl. J. f. O.* 1861, p. 166; *Gray, Hand-l. B.* i. p. 276, no. 4054; *Sharpe, Cat. Afr. B.* p. 22; *id. P. Z. S.* 1871, p. 609; *id. Ibis*, 1872, p. 69; *Reichen. J. f. O.* 1875, pp. 34, 49; *id. J. f. O.* 1877, p. 25.

Andropadus erythropterus, *Hartl. P. Z. S.* 1858, p. 292; *id. J. f. O.* 1861, p. 166; *Gray, Hand-l. B.* i. p. 276, no. 4058.

*Adult* (Gaboon, Du Chaillu). General colour above dull olive-greenish, a little more rusty on the rump, and decidedly more so on the upper tail-coverts; tail-feathers brown, with olive-greenish margins; wing-coverts olive-brown, with olive-greenish edgings like the back; quills dark sepia-brown, washed with pale olive-greenish on the outer web, lighter towards the ends of the primaries; the secondaries washed with reddish brown, especially the innermost, which are almost entirely of the latter colour; sides of face olive-greenish like the upper parts, the ear-coverts with indistinct olive shaft-lines; over the eye a scarcely distinguishable line of paler olive from the lores; cheeks and under surface of body olive-yellowish, paler yellow on the centre of the abdomen and under tail-coverts; sides of breast and flanks dark olive-green, almost meeting across the breast; under wing-coverts light olive-yellow; quills dusky brown below, whitish along the inner webs; "bill horn-colour, the lower mandible lightest;

feet brown; iris bright brown" (MS. label to spec. *c*). Total length 6 inches, culmen 0·55, wing 2·8, tail 2·8, tarsus 0·75.

*Young* (type of *A. erythropterus*, Hartl.). General colour above dark olive-greenish, the upper tail-coverts slightly more rufescent; tail chocolate-brown, rather rufescent on the margins of the feathers; least and median wing-coverts like the back; primary-coverts and greater coverts rufous-brown; quills dark brown, rufous-brown externally, the secondaries almost entirely of the latter colour; sides of face and under surface of body dark olive-greenish, a little more ashy on the throat, the centre of the body and abdomen somewhat lighter olive; under tail-coverts rufescent brown; under wing-coverts light yellowish, inclining to fawn-colour on the edge of the wing; quills dull brown below, ashy brown tinged with fawn-colour along the inner web; feet pale: bill brown, yellowish on the lower mandible and at the tip and along the cutting-edge of the upper mandible. Total length 6·5 inches, culmen 0·55, wing 2·8, tail 2·7, tarsus 0·75.

*Obs.* When Dr. Hartlaub described his *Andropadus erythropterus* from a specimen in the Museum collection, the series there was so small that the bird might well have been taken for a distinct species. Now, however, the series shows every gradation from youthful plumage to that of maturity, the rufous wings being accompanied by a pale bill and dusky-olive abdomen and under wing-coverts. As the bird gets adult the plumage becomes more olive, the bill is blackish brown, and the under wing-coverts and the abdomen brighter olive-yellow.

The Small Green Bulbul is an inhabitant of the entire forest-region of Western Africa, from Senegambia to the Congo.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | [West Africa.] | L. Fraser, Esq. [C.]. |
| *c*. Ad. sk. | Cape S. Mary, Gambia, Dec. 26, 1864. | R. B. Sharpe, Esq. |
| *d*. Ad. st. | River Gambia. | |
| *e*. Imm. sk. | Ashantee. | J. Gould, Esq. (Type of *A. erythropterus*.) |
| *f*. Ad. sk. | Ashantee. | J. Gould, Esq. |
| *g*. Ad. sk. | Fantee. | R. B. Sharpe, Esq. |
| *h*. Ad., *i*, *k*. Juv. sk. | Fantee (*Governor Ussher*). | R. B. Sharpe, Esq. |
| *l*, *m*. Ad. sk. | Fantee (*Aubinn*). | R. B. Sharpe, Esq. |
| *n*. Ad. sk. | Fantee. | Andrew Swanzy, Esq. [P.]. |
| *o*. Ad. sk. | Cameroons (*Crossley*). | R. B. Sharpe, Esq. |
| *p*. Ad. sk. | Gaboon. | M. Verreaux. |
| *q*. Imm. sk. | River Muni, Gaboon. | P. B. DuChaillu, Esq. [C.]. |
| *r*. Ad. sk. | Cape Lopez. | P. B. DuChaillu, Esq. [C.]. |
| *s*. Imm. sk. | Cape Lopez (*DuChaillu*). | R. B. Sharpe, Esq. |
| *t*. Ad. sk. | Fernando Po. | L. Fraser, Esq. [C.]. |
| *u*. Ad. sk. | Chinchonxo, Congo. | MM. Lucan and Petit [C.]. |

### 4. Andropadus curvirostris.

Andropadus curvirostris, *Cass. Pr. Philad. Acad.* 1859, p. 46; *Hartl. J. f. O.* 1861, p. 166; *Gray, Hand-l. B.* i. p. 276, no. 4057; *Sharpe & Bouvier, Bull. Soc. Zool. France*, 1877, p. 478.

*Adult* (Camma River, DuChaillu). General colour above olive-brown, a little more rusty on the lower back and rump; upper tail-coverts rufescent brown; tail dull rufous-brown, lighter along the tip of the outer feathers and along the extreme margin of the inner web; wings olive-brown like the back, the outer margins to the feathers being a little more yellowish olive: head rather darker olive-brown than the back, as also the ear-coverts; cheeks, throat, and under surface of body generally light brown, washed with yellowish olive, yellower on the abdomen and centre of the breast; the lower throat, fore neck, and chest dark brown, deepening on the sides of the latter; under wing-coverts and axillaries light sulphur-yellow; quills light ashy brown, greyish white along the inner web. Total length 6·8 inches, culmen 0·65, wing 3, tail 2·9, tarsus 0·75.

The Slender-billed Bulbul is only known from the forests of Gaboon in Western Africa, whence it probably reaches to the Congo; but the specimen from this locality, determined by M. Bouvier and myself, may prove on a second examination to have been wrongly identified.

*a*. Ad. sk. Gaboon. P. B. DuChaillu, Esq. [C.].

### 5. Andropadus oleaginus.

Andropadus insularis, *Hartl. Faun. Madag.* p. 44; *Gray, Hand-l. B.* i. p. 276, no. 4060.
Andropadus oleaginus, *Peters, J. f. O.* 1868, p. 133.
Andropadus hypoxanthus, *Sharpe, ed. Layard's B. S. Afr.* p. 205.

*Adult*. Above olive-brown with a yellowish tinge, the wings and tail being of the same colour; lores light yellow, the forehead also slightly shaded with this colour; ear-coverts olive-brown with faint stripes of yellow, the cheeks also yellowish like the under surface; centre of the body, thighs, edge of the wing, and under wing-coverts yellow; lower surface of quills yellow along the edge of the inner web; bill and feet black. Total length 7·8 inches, culmen 0·7, wing 3·7, tail 3·8, tarsus 0·85.

*Obs*. I have no doubt that the present species ought really to be called *A. insularis*, Hartl.; but as this name was given to a bird supposed to be from Madagascar, the name is inappropriate. That of *A. oleaginus* of Peters is generally used as synonymous with *A. flavescens*, Hartl.; but from the locality (Inhambane) I believe that it will be found to be the same as the species more recently called by me *A. hypoxanthus*, which latter name I have suppressed. A letter received from Dr. Reichenow, of the Berlin Museum, in reply to my inquiries, confirms the above suppositions, after an examination of Dr. Peters's type.

Peters's Tooth-billed Bulbul is probably confined to South-eastern Africa, having been originally discovered at Inhambane, and afterwards on the Zambesi.

| | | |
|---|---|---|
| *a, b, c.* Ad. sk. | Tete, Zambesi. | Dr. Kirk [C.]. |

### 6. Andropadus flavescens.

Andropadus flavescens, *Hartl. P. Z. S.* 1867, p. 825; *Cab. in Von der Decken's Reis.* iii. p. 29; *Gray, Hand-l. B.* i. p. 276, no. 4059; *Finsch & Hartl. Vög. Ostafr.* p. 295, Taf. iii. fig. 1; *Sharpe, P. Z. S.* 1873, p. 712; *Cab. J. f. O.* 1878, p. 227; *Fischer & Reichen. J. f. O.* 1878, p. 261, 1879, p. 348.

*Adult.* Above olive-brown, with a very slight tinge of yellow, the head a little darker, and the lower back and rump a little lighter in colour; wing-coverts like the back, with nearly obsolete narrow margins of yellow, the secondaries also similar, the primaries edged with a little brighter olive-yellow; tail-feathers dark olive-brown, with lighter olive margins; lores obscurely yellow; ear-coverts dark olive-brown, with lighter olive centres to the feathers; cheeks, throat, and under surface of the body ashy olive, washed with yellow, which becomes brighter on the centre of the breast, thighs, abdomen, and under tail-coverts; under wing-coverts and axillaries bright yellow; quills dark brown below, yellow along the edge of the inner web, slightly inclining to fawn-colour on the secondaries; "bill and feet black; iris yellow" (*Fischer*); "iris clear yellow" (*Hildebrandt*). Total length 7·6 inches, culmen 0·65, wing 3·1, tail 3, tarsus 0·8.

The Eastern Tooth-billed Bulbul is an inhabitant of the Zanzibar district in Eastern Africa.

| | | |
|---|---|---|
| *a, b.* Ad. sk. | Mombas (*Rev. T. Wakefield*). | R. B. Sharpe, Esq. [P.]. |
| *c, d, e.* Ad. sk. | Zanzibar. | R. B. Sharpe, Esq. [P.]. |

## 18. CHLOROCICHLA.

Head and bill of *Chlorocichla flaviventris*.

*Range.* Confined to Africa.

*Key to the Species.*

*a.* Under tail-coverts bright yellow.
  *a'.* Lores and ring round the eye olive-yellowish; ear-coverts dark brown, scarcely lighter than the crown ..... *flaviventris*, p. 113.
  *b'.* Lores grey; ring round the eye white; ear-coverts paler and more ashy brown, lighter than the crown ..... *occidentalis*, p. 113.
*b.* Under tail-coverts light brown, edged with dull yellow ..... *gracilirostris*, p. 114. / *gracilis*, p. 115.

### 1. Chlorocichla flaviventris.

Trichophorus flaviventris, *Smith, Ill. Zool. S. Afr., Aves*, pl. 59; *Bp. Consp.* i. p. 262.

Criniger flaviventris, *Gray, Gen. B.* i. p. 236; *Finsch, J. f. O.* 1867, p. 22; *Layard, B. S. Afr.* p. 137; *Gray, Hand-l. B.* i. p. 274, no. 4013; *Sharpe, ed. Layard's B. S. Afr.* p. 203 (pt.); *Cab. J. f. O.* 1878, p. 227; *Fischer & Reichen. J. f. O.* 1878, p. 260, 1879, p. 348.

*Adult male.* General colour above olive-brown, the head a little darker brown than the back, the wing-coverts resembling the latter; quills dark brown, externally edged with olive-brown, yellowish olive on the primaries; tail-feathers brown, narrowly edged with olive-brown; lores and a ring round the eye dull yellowish olive; ear-coverts brown like the head, washed with olive; cheeks and under surface of body sulphur-yellow, washed with olive-green on the sides of the breast, and more slightly with olive on the flanks; under tail-coverts yellow like the abdomen; under wing-coverts bright yellow; quills light brown below, yellowish along the inner web; "bill horn-brown, base of lower mandible bluish grey; feet leaden grey; iris reddish brown" (*Fischer*). Total length 8·2 inches, culmen 0·85, wing 4, tail 3·8, tarsus 0·9.

*Young.* Appears to differ from the adult in being a little darker in colour and in having a tint of saffron-yellow on the under surface, especially on the under wing- and tail-coverts and the inner lining of the quills.

The Yellow-bellied Bulbul inhabits Eastern Africa, from Natal as far north as Mombasa.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Island of Mombasa. | Dr. J. M. Hildebrandt [C.]. |
| *b.* Ad. sk. | Shupanga, Shiré River, June 1862. | Dr. Kirk [C.]. |
| *c.* Ad. sk. | Tete, Zambesi. | Dr. Kirk [C.]. |
| *d.* Ad. sk. | Durban, Natal (*F. Oates*). | Messrs. C. G. & W. Oates [P.]. |

### 2. Chlorocichla occidentalis. (Plate VIII.)

Trichophorus flaviventris (*nec Smith*), *Bocage, Jorn. Lisb.* 1868, p. 42; *Gadow, J. f. O.* 1876, p. 419.

Criniger flaviventris, *Sharpe, P. Z. S.* 1871, p. 130; *id. Cat. Afr. B.*

p. 22; *Gurney in Anderss. B. Dam. Ld.* p. 121; *Bocage, Jorn. Lisb.* 1874, p. 53; *Gadow, J. f. O.* 1876, p. 419; *Bocage, Orn. Angola,* p. 245.

*Adult female.* General colour above light olive-brown, the head and nape darker olive-brown; wing-coverts like the back, the outer greater coverts, primary-coverts, and primaries brown, edged with yellowish olive; the inner secondaries duller; tail-feathers olive with paler tips and pale yellowish edgings, especially distinct on the inner webs towards the base; lores dusky grey; eyelid whitish, as well as a very narrow superciliary line; ear-coverts ashy brown, washed with olive; cheeks yellow, slightly shaded with grey; under surface of body yellow, hoary whitish on the chin, the fore neck and the sides of the body shaded with olive-green; under wing-coverts and axillaries bright yellow; quills dusky brown below, yellow along the edge of the inner web; "bill horn-colour, slightly paler towards the base of the mandible; legs leaden grey; iris brown" (*Shelley*); "bill and feet brown; iris reddish brown" (*Anchieta*). Total length 7·6 inches, culmen 0·8, wing 3·8, tail 3·7, tarsus 0·9.

The Western Yellow-bellied Bulbul replaces the foregoing species in South-western Africa, where it extends from Angola into Benguela and Damara Land.

| | | |
|---|---|---|
| *a*. Ad. sk. | Angola. | J. J. Monteiro, Esq. [C.]. |
| *b*, *c*. ♀ ad. sk. | Ovaquenyama, Damara Land, May 28, 1867 (*C. J. Andersson*). | R. B. Sharpe, Esq. |

### 3. Chlorocichla gracilirostris.

Andropadus gracilirostris, *Strickl. P. Z. S.* 1844, p. 101; *Allen & Thomps. Exp. Niger*, ii. p. 497; *Gray, Gen. B.* i. p. 236; *Bp. Consp.* i. p. 261; *Hartl. Orn. W.-Afr.* p. 87; *Cass. Pr. Philad. Acad.* 1859, p. 45; *Heine, J. f. O.* 1860, p. 140; *Hartl. J. f. O.* 1861, p. 166; *Gray, Hand-l. B.* i. p. 276, no. 4054; *Sharpe, Ibis*, 1870, p. 474; *id. Cat. Afr. B.* p. 22; *Reichen. J. f. O.* 1875, p. 34.

*Adult* (type of species). General colour above dark olive-greenish, a little duller on the head; the wing-coverts like the back, and the quills dark brown, washed externally with the same olive-greenish as the back; tail-feathers brown, margined with olive-greenish, and narrowly edged with yellowish buff near the tips of the inner web; sides of face ashy grey, as well as a faint superciliary mark, the ear-coverts washed with olive; under surface of body ashy grey, with a slight olive shade, the throat much paler and whitish ashy, also faintly washed with yellow, the centre of the body and abdomen with a pale yellow tinge; under tail-coverts whitish ash-colour, with faintly indicated brown centres to the feathers; under wing-coverts brighter olive-yellow, the latter slightly inclining to fawn-colour; quills dull brown below, fawn-coloured along the inner webs; "bill black; feet blackish grey; iris reddish brown" (*Reichenow*); "iris white" (*Fraser*). Total length 6·7 inches, culmen 0·65, wing 3·3, tail 3, tarsus 0·8.

Fraser's Bulbul is found in West Africa from the Gambia to Gaboon and in the islands in the Bight of Benin.

| | | |
|---|---|---|
| *a*. Ad. sk. | Fernando Po. | L. Fraser, Esq. [C.]. (Type of species.) |
| *b*, *c*. Ad. sk. | Fantee (*Aubinn*). | R. B. Sharpe, Esq. |
| *d*. Ad. sk. | Fantee (*Governor Ussher*). | R. B. Sharpe, Esq. |
| *e*. Ad. sk. | Gaboon (*DuChaillu*). | R. B. Sharpe, Esq. |
| *f*. Ad. sk. | River Moonda. | P. B. DuChaillu, Esq. [C.]. |

### 4. Chlorocichla gracilis.

Andropadus gracilis, *Cabanis, Orn. Centralbl.* 1880, p. 174.

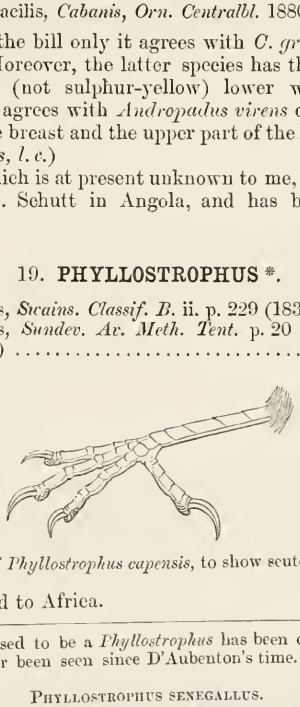
In the form of the bill only it agrees with *C. gracilirostris*, but is much smaller. Moreover, the latter species has the throat whitish, and rusty-yellow (not sulphur-yellow) lower wing-coverts. In colour *C. gracilis* agrees with *Andropadus virens* of Cassin, but the throat down to the breast and the upper part of the head are inclining to grey. (*Cabanis, l. c.*)

This species, which is at present unknown to me, has been recently discovered by Dr. Schutt in Angola, and has been described by Dr. Cabanis.

## 19. PHYLLOSTROPHUS *.

Type.

Phyllostrephus, *Swains. Classif. B.* ii. p. 229 (1837) .. P. capensis.
Phyllostrophus, *Sundev. Av. Meth. Tent.* p. 20 (1872, *nom. emend.*) ..... P. capensis.



Tarsus of *Phyllostrophus capensis*, to show scutellations.

*Range*. Confined to Africa.

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* A species supposed to be a *Phyllostrophus* has been described from Senegambia, but has never been seen since D'Aubenton's time. Its synonymy is as follows:—

PHYLLOSTROPHUS SENEGALLUS.

Le Merle du Sénégal, *Briss. Orn.* ii. p. 261, pl. xxii. fig. 2.
Turdus senegallus, *P. L. S. Müll. Syst. Nat.*, Anhaug, p. 142; *Cass. Proc. Philad. Acad.* 1864, p. 250.
Merle brun de Sénégal, *Daubent. Pl. Enl.* 563, fig. 2.
Turdus lugubris, *Bodd. Tabl. Pl. Enl.* p. 33.
Turdus senegalensis, *Bonn. et Vieill. Enc. Méth.* p. 654.
Phyllostrephus senegalensis, *Less. Rev. Zool.* 1840, p. 136; *Hartl. Orn. W.-Afr.* p. 89; *Bp. Consp.* i. p. 260.
Phyllostrephus lugubris, *Gray, Gen. B.* i. p. 238.
Phyllostrephus senegallus, *Gray, Hand-l. B.* i. p. 272, no. 3978.

*Hab.* Senegal.

*Key to the Species.*

*a*. Back brown.
  *a'*. Larger: wing 3·45 inches; brown, above slightly olive; cheeks, flanks, and under tail-coverts also brown ..... *capensis*, p. 116.
  *b'*. Smaller: wing 3·05 inches; rufous-brown, including the tail; sides of face also rufous-brown; flanks and under tail-coverts fulvescent brown ..... *strepitans*, p. 117.
*b*. Back pale olive-brown, contrasting with the upper tail-coverts and the tail, which are rufous.
  *c'*. Larger: wing 3·35 inches; head dark ashy brown ..... *fulviventris*, p. 117.
  *d'*. Smaller: wing 3·1 inches; head more greenish * ..... *fischeri*, p. 118.

## 1. Phyllostrophus capensis.

Le Jaboteur, *Levaill. Ois. d'Afr.* iii. pl. 112. fig. 1; *Sund. Crit. om Levaill.* p. 36.

Phyllostrephus capensis, *Swains. Classif. B.* ii. p. 229; *Less. Rev. Zool.* 1840, p. 135; *Gray, Gen. B.* i. p. 238; *Bp. Consp.* i. p. 260; *Cab. Mus. Hein.* Th. i. p. 113; *Grill, Zool. Anteckn.* p. 34; *Layard, B. S. Afr.* p. 141; *Gray, Hand-l. B.* i. p. 272, no. 3978; *Sharpe, Cat. Afr. B.* p. 23; *Gurney in Anderss. B. Dam. Ld.* p. 120; *Shelley, Ibis*, 1875, p. 74; *Sharpe, ed. Layard's B. S. Afr.* p. 203; *Boeage, Orn. Angola*, p. 247.

Phyllostrophus capensis, *Sund. Crit. om Levaill.* p. 36; *id. Meth. Av. Tent.* p. 20.

*Adult male.* General colour above brown, a little darker on the head, and slightly paler on the rump; a slight shade of olive pervading the upper surface; wing-coverts like the back; the greater series and the quills dusky brown, externally more umber-brown with a slightly olivaceous edging to the feathers; upper tail-coverts browner than the back, and more resembling the tail-feathers, which are brown, slightly rufescent, and having somewhat paler margins; lores fulvous brown, slightly mottled with whitish bases to the feathers; ear-coverts dark brown with lighter brown shaft-streaks; above and below the eye a slight streak of white on the eyelid; cheeks white, the hinder part brown; throat white; fore neck, breast, and sides of body light brown, the latter slightly washed with olive; centre of the breast and abdomen white, faintly washed with pale yellow, some of the feathers being edged with this colour; under tail-coverts fulvous brown; thighs brown like the flanks; under wing-coverts yellowish buff, with dusky bases to the feathers; quills dull brown below, rufescent along the inner webs; "bill horn-colour; legs grey; iris reddish brown" (*Ayres*). Total length 7·6 inches, culmen 0·85, wing 3·45, tail 3·2, tarsus 1.

*Adult female.* Similar in plumage to the male; "bill horn-colour; legs grey; iris brown" (*Ayres*). Total length 7·6 inches, culmen 0·85, wing 3·25, tail 3·3, tarsus 0·95.

* For this diagnosis I am indebted to Dr. Reichenow, of the Berlin Museum.

Head of *Phyllostrophus capensis*.

The Cape Bristle-necked Bulbul is strictly confined to South Africa, where it is found all over the Cape Colony to Natal, and as far as Lake N'gami to the northward.

| | | |
|---|---|---|
| *a, b.* Ad. sk. | South Africa. | Sir Andrew Smith [P.]. |
| *c.* Ad. sk. | Knysna (*C. J. Andersson*). | R. B. Sharpe, Esq. |
| *d.* ♂ ad. sk. | Knysna, Jan. 13, 1866 (*C. J. A.*). | R. B. Sharpe, Esq. |
| *e.* Ad. sk. | Natal. | Dr. Gueinzius [C.]. |
| *f, g.* ♂ ♀ ad. sk. | Pinetown, Natal, April 1875 (*T. L. Ayres*). | R. B. Sharpe, Esq. [P.]. |
| *h.* Ad. sk. | Durban (*Frank Oates*). | C. G. & W. Oates, Esqrs. [P.]. |
| *i.* Ad. sk. | Lake N'Gami (*Chapman*). | R. B. Sharpe, Esq. |
| *k.* Ad. st. | South Africa. | Sir A. Smith [C.]. |

## 2. Phyllostrophus strepitans.

Criniger strepitans, *Reichen. Orn. Centralbl.* 1879, p. 139; *Fischer & Reichen. J. f. O.* 1879, p. 348; *Reichen. & Schalow, t. c.* p. 318.
Phyllostrephus sharpii, *Shelley, Ibis*, 1880, p. 334.

*Adult* (Dar-es-salam; Dr. Kirk: type of *Phyllostrophus sharpii*). General colour above rufous-brown, the head uniform with the back, the rump and upper tail-coverts a little more rufous; wings browner than the back, the feathers edged with rufous-brown, the primaries externally margined with fulvous brown; tail dark rufous-brown; lores buffy white; ear-coverts and sides of face generally rufous-brown like the crown; throat dull brownish white; centre of breast and abdomen dull white, the sides of the body, flanks, thighs, and under tail-coverts light fulvous brown; under wing-coverts pale rufous, as also the edge of the wing; quills sepia-brown below, lighter rufous along the inner web; "upper mandible and tip of lower mandible dark brown, the base of the latter bluish horn-colour; feet greyish blue; iris reddish brown" (*Fischer*). Total length 7·4 inches, culmen 0·75, wing 3·05, tail 3·25, tarsus 0·8. (*Mus. G. E. Shelley.*)

Sharpe's Bristle-necked Bulbul is only known from the Zanzibar district in Eastern Africa.

## 3. Phyllostrophus fulviventris.

Phyllostrephus capensis (*nec Sw.*), *Bocage, Jorn. Lisb.* 1868, p. 42.

Phyllostrephus fulviventris, *Cab. J. f. O.* 1876, p. 92; *Reichen. J. f. O.* 1877, p. 26; *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 44; *Bocage, Orn. Angola*, p. 248.

*Adult female.* General colour above olive-brown, the head darker brown; lesser and median wing-coverts like the back; greater coverts and quills brown, edged with olive, the secondaries externally browner; rump a little lighter olive than the back; upper tail-coverts light fawn-brown; tail-feathers rufous-brown; lores and a faintly indicated eyebrow, as well as a ring of feathers round the eye, yellowish white; ear-coverts pale brown, washed with olive; cheeks and throat dull white, washed with yellowish olive; rest of under surface very pale yellow, the sides of the body olive-brown, as also the thighs and under tail-coverts; under wing-coverts pale yellow; quills dusky brown below, pale yellowish along the inner web; "bill light reddish brown; feet blackish brown; iris clear brown" (*Falkenstein*). Total length 7·8 inches, culmen 0·8, wing 3·35, tail 3·6, tarsus 0·9.

*Obs.* Dr. Falkenstein found the feet "flesh-coloured" in a male bird.

The Buff-bellied Bristle-necked Bulbul is an inhabitant of West Africa, from the Congo district to Benguela.

| | | |
|---|---|---|
| *a*. ♀ ad. sk. | Landana, Congo. | Messrs. Lucan and Petit [C.]. |
| *b*. ♀ ad. sk. | Biballa (*Anchieta*). | R. B. Sharpe, Esq. |

### 4. Phyllostrophus fischeri.

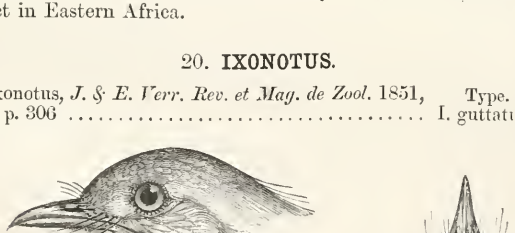
Criniger fischeri, *Reichen. Orn. Centralbl.* 1879, p. 139; *Fischer & Reichen. J. f. O.* 1879, p. 348; *Reichen. & Schalow, t. c.* p. 319.

*Adult.* Upper surface olive-green; throat and middle of the belly yellowish white; breast and flanks olivaceous; under tail-coverts isabelline; tail-feathers rufous; bill dusky; feet lead-colour; iris white. Total length 7·5 inches, culmen 0·75, wing 3·1, tail 4·55, tarsus 0·9.

Fischer's Bristle-necked Bulbul is only known from the Zanzibar district in Eastern Africa.

## 20. IXONOTUS.

| | |
|---|---|
| Ixonotus, *J. & E. Verr. Rev. et Mag. de Zool.* 1851, p. 306 | Type. I. guttatus. |



Head and bill of *Ixonotus guttatus*.

*Range.* Confined to West Africa, from Gaboon to Fantee.

### 1. Ixonotus guttatus.

Ixonotus guttatus, *J. & E. Verr. Rev. et Mag. de Zool.* 1851, p. 306; *Hartl. J. f. O.* 1854, p. 26; *id. Orn. West-Afr.* p. 88; *Cass. Proc. Philad. Acad.* 1859, p. 46; *Heine, J. f. O.* 1860, p. 140; *Hartl. J. f. O.* 1861, p. 167; *Sharpe, Cat. Afr. B.* p. 23; *id. P. Z. S.* 1871, p. 609; *id. Ibis*, 1872, p. 69; *Ussher, Ibis*, 1874, p. 57; *Bouvier, Cat. Ois. Marche etc.* p. 17; *Reichen. J. f. O.* 1875, pp. 32, 49; *Oustalet, Bull. Soc. Philom.* (7) i. p. 106; *id. Nouv. Arch. Mus.* 2nd series, vol. ii. p. 101, pl. 5. fig. 2.
Criniger guttatus, *Gray, Hand-l. B.* i. p. 274, no. 4034.

*Adult.* General colour above olive-brown, the head much more dingy and inclining to grey on the forehead, the feathers of which have dusky edges, producing a slightly scaled appearance; scapulars dark brown, washed with dull olive, and tipped with triangular spots of yellowish white; wing-coverts dark brown, washed with dark olive on the outer webs, and tipped with large triangular spots of white; bastard-wing uniform dark brown; primary-coverts and quills dark brown, externally edged with olive, the inner secondaries with a white spot at the tip; lower back, rump, and upper tail-coverts blackish brown, mottled with yellowish-white tips to the feathers; four centre tail-feathers brown, the next one brown on the inner web, white on the outer, the three outer feathers pure white; lores, eyelid, and feathers below the eye dull white; ear-coverts brown, slightly tinged with rufous like the sides of the neck, and streaked with white shaft-lines; cheeks and under surface of body white, slightly washed with pale yellow in the centre of the body, the sides of the breast dull greenish; under wing-coverts and axillaries white, also slightly washed with yellow; under wing-coverts dark brown, the primaries white, the secondaries pale yellow along the inner web; "bill and feet bluish grey; iris dirty white" (*Reichenow*); "iris yellow" (*Ussher*). Total length 7 inches, culmen 0·65, wing 3·4, tail 2·9, tarsus 0·75.

Young birds have the iris nut-brown (*Reichenow*).

*Obs.* The three specimens from Fantee all want the grey forehead, the crown of the head being dark olive like the back.

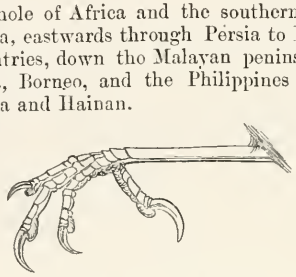
The White-spotted Bulbul is an inhabitant of the West-African forests, from Denkera, in the interior of the Gold Coast, to Gaboon.

| | | |
|---|---|---|
| *a.* Ad. st. | Gaboon. | M. Verreaux. |
| *b.* Ad. sk. | Gaboon (*Walker*). | R. B. Sharpe, Esq. |
| *c.* Ad. sk. | Cameroons Mountains, Jan. 28, 1871 (*A. Crossley*). | R. B. Sharpe, Esq. |
| *d.* Ad. sk. | Cameroons Mountains, Feb. 11, 1871 (*A. C.*). | R. B. Sharpe, Esq. |
| *e, f.* Ad. sk. | Kazarako, Fantee, April 1871, (*Aubinn*). | R. B. Sharpe, Esq. |
| *g.* Jun. sk. | Kazarako (*Aubinn*). | R. B. Sharpe, Esq. |

## 21. PYCNONOTUS*.

| | Type. |
|---|---|
| Pycnonotus, *Boie, Isis*, 1826, p. 973 (*ex Kuhl, MSS.*). | P. capensis. |
| Brachypus, *Swains. Zool. Journ.* iii. p. 163 (1827, *nec Swains.* 1837) | P. hæmorrhous. |
| Ixos, *Temm. Man. d'Orn.* iv. p. 606 (1840) | P. barbatus. |
| Loidorusa, *Reichenb. Syst. Av.* Taf. liv. fig. 11 (1850) | P. analis. |
| Lædorusa, *Cabanis, Mus. Hein.* Th. i. p. 109 (1850, *ex Reichenb.*) | P. analis. |
| Molpastes, *Hume, Str. Feathers*, 1873, p. 378, note | P. hæmorrhous. |

*Range.* The whole of Africa and the southern countries of the Mediterranean sea, eastwards through Persia to India and Ceylon, the Burmese countries, down the Malayan peninsula to the islands of Java, Sumatra, Borneo, and the Philippines; China, with the islands of Formosa and Hainan.



Leg of *Pycnonotus hæmorrhous.*

*Obs. Ixus* is generally the genus employed for this group of Bulbuls; but the first mention of the genus that I can discover is in the 24th livraison of Temminck's 'Planches Coloriées' (vol. iii.), published in 1825, where he calls the Javan species *Ixos virescens* (pl. 382. fig. 1). He gives no characters for the genus; but in 1828 (livr. 76) he describes and figures two species, *Ixos chalocephalus*

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* Pycnonotus familiaris.

Ixos familiaris, *Kittl. Mém. Acad. St. Pétersb. des Savans Etrang.* i. p. 235, pl. xiii. (1831).
Iora? familiaris, *Gray, Gen. B.* i. p. 199; *Bp. Consp.* i. p. 397.
Apalopteron familiare, *Bp. C. R.* xxxix. p. 59 (1854).
Pycnonotus familiaris, *Gray, Hand-l. B.* i. p. 271, no. 3977.

Bill and feet blackish. Iris bright light brown. All the feathers of the body unusually long, with very fluffy webs. Forehead and a large triangular mark round the eye, inclining downwards, black; near the base of the bill, on each side of the forehead, a yellow spot; eyelids yellowish white. Throat, fore neck, cheeks, and the whole of the remainder of the under parts, beautiful yellow, the sides of the abdomen strongly tinged with greenish grey. As all the feathers are rather fluffy on the upper parts of the whole body, the ashy-grey ground-colour of the feather makes itself visible, and causes the terminal half of the feather, which is itself dull green, to have a still stronger tinge of grey. Near the base of the tail the green colour becomes somewhat brighter, this colour passing or changing into dark yellow on the crown and occiput; quills and tail-feathers dark brown, with yellowish-green margins to the outer webs. Wing 2·6 inches.

The above is a transcript of Kittlitz's description of this species, which I have never seen, and which may be wrongly placed here. All those who have examined specimens agree that its relations are near *Pycnonotus*, though Bonaparte insists on its being generically distinct.

Kittlitz's Bulbul is only known from the island of Bonin, in the Japanese seas.

and *Ixos squamatus*. Again no description of the genus is given; and in the 'Tableau Méthodique' (1836), where 12 species are enumerated under the name of *Ixus*, a perfect *olla podrida* of forms occurs, and the genus is made to include such widely different birds as *Ixos azureus*, which is a *Cochoa*, and *Ixus phœnicopterus*, which is a *Campophaga*. It becomes clear, therefore, that *Ixus* of Temminck (1825) is indefinable; and the only assignable date to the genus is 1840, when he gives a complete diagnosis of the characters and a type in *Ixos obscurus*; the latter, however, is congeneric with *Pycnonotus capensis*, the type of Boie's genus *Pycnonotus*; and *Ixus* therefore becomes a synonym of *Pycnonotus*. Where Kuhl published the latter name, which is generally credited to him, I have not been able to find out; and I believe that the first actual publication of the genus *Pycnonotus* is that given by Boie in the 'Isis' for 1826.

I cannot admit the genus *Molpastes* of Hume as distinct from *Pycnonotus*, its principal characters being the crest and the crimson under tail-coverts; but in the former respect it is approached by many other species, for indeed all *Pycnonoti* are more or less crested; it forms, however, a very natural section in the genus. The African species also form a subgenus or natural group, being distinguished by a fleshy eyelid; but many of the Asiatic species seem to have a thickened edge to the eyelid, and it is very difficult to tell from the skins whether there has been a wattled margin to the eye or not. On account of this difficulty I have preferred to keep all the *Pycnonoti* under one generic heading for the present.

*Key to the Species.**

*a*. Under tail-coverts scarlet or crimson.
  *a'*. Ear-coverts black, scarcely distinguishable from the crown of the head ..... *hæmorrhous*, p. 124.
  *b'*. Ear-coverts lighter than the crown of the head, and contrasting with the latter.
    *a''*. Head distinctly capped, in strong contrast to the back and mantle.
      *a'''*. Ear-coverts bronzy brown, contrasting with the throat, which is black.. *burmanicus*, p. 125.
      *b'''*. Ear-coverts light brown or ashy brown, resembling the throat in colour; the chin black.
        *a*[1]. Breast mottled, the feathers being light ashy brown, with darker brown centres..... *nigripileus*, p. 126.
        *b*[1]. Breast perfectly uniform below .... *atricapillus*, p. 127.
    *b''*. Head black, as well as hinder neck, the two colours merging together, so that no distinct cap becomes visible.
      *c'''*. Mantle and back blackish brown, the black distinctly pronounced on the breast, and occupying the whole of the latter..... *pygæus*, p. 128.

* *Pycnonotus stictocephalus*, Salvadori, Ann. Mus. Civic. Genov. ix. p. 34 (1877), is now stated by the describer to belong to the Meliphagidæ, and forms the type of his new genus *Pycnopygius* (Salvad. Ann. Mus. Civic. Genov. xvi. p. 78).

*d'''*. Mantle and back brown, much lighter than the head; fore neck and breast brown, not black ..... *intermedius*, p. 130.

*b*. Under tail-coverts yellow or orange.

*c'*. With black or brown on the chin and throat.

*e''*. Ear-coverts dark, resembling the crown.

*e'''*. With no black cap, the head being like the rest of the back.

*c*⁴. With a red eyelid; underparts dark brown, the centre of the abdomen only white ..... *capensis*, p. 130.

*d*⁴. With a black eyelid; underparts white from the breast downwards; throat and chest brown..... *tricolor*, p. 131.

*f'''*. With a black cap, contrasting with the rest of the back.

*e*⁴. Eyelid black; throat brown, only the chin black ..... *layardi*, p. 132.

*f*⁴. Eyelid red; throat black..... *nigricans*, p. 134.

*g*⁴. Eyelid grey; throat black ..... *xanthopygus*, p. 135.

*d''*. Ear-coverts lighter than the crown.

*g'''*. Tail-feathers tipped with white; ear-coverts and hinder cheeks white.

*h*⁴. Back uniform pale ashy brown; entire throat and fore neck black.... *leucotis*, p. 136.

*i*⁴. Back mottled with dark-brown centres to the feathers; throat black; fore neck ashy white..... *aurigaster*, p. 137.

*k*⁴. Back uniform; head duller black; only the chin and sides of throat black; otherwise as in *P. aurigaster*. *germaini*, p. 138.

*h'''*. No white tips to tail-feathers, which are brown washed with olive; lores orange; ear-coverts yellow; throat dark brown..... *bimaculatus*, p. 138.

*d'*. With no black or brown on the chin or throat.

*e''*. With a black cap; throat and fore neck white ..... *xanthorrhous*, p. 139.

*f''*. With no black on the head.

*i'''*. Throat uniform, dingy brown or white; a pale loral streak of dull white.

*l*⁴. Under wing-coverts, edge of wing, and lining of quills white; a distinct white eyebrow.

*a*⁵. Ear-coverts pale ..... *analis*, p. 140.

*b*⁵. Ear-coverts blackish ..... *goiavier*, p. 141.

*m*⁴. Under wing-coverts, edge of wing, and lining of quills pale fawn-colour; under tail-coverts deep yellow, washed with fawn-colour; cheeks dingy brown, without any yellow..... *flavescens*, p. 143.

*n*⁴. Under wing-coverts, edge of wing, and lining of quills pale yellow; under tail-coverts very pale yellow; cheeks washed with yellow ..... *luteolus*, p. 143.

*k'''*. Throat streaked with bright yellow; an orange spot at base of nostrils.
*o*⁴. Forehead bright yellow; hinder part of head grey; ear-coverts and cheeks streaked with bright yellow. *finlaysoni*, p. 144.
*p*⁴. Entire crown dull olive-yellow, the forehead scarcely at all brighter; ear-coverts and sides of face olive-yellow, but scarcely streaked at all. *davisoni*, p. 145.
*l'''*. Throat uniform bright yellow; crown and sides of head olive-yellow; back ashy; breast and sides lighter ashy. . *xantholæmus*, p. 145.
*c*. Under tail-coverts neither red nor yellow, ashy brown or olive, sometimes white, slightly tinged with olive-yellow.
*e'*. No white stripes on the breast.
*g''*. Throat yellow; upper surface olive-yellow; breast and flanks ashy grey .. *falkensteini*, p. 146.
*h''*. Throat brown or blackish brown.
*m'''*. Head brown, scarcely darker than the back ..... *barbatus*, p. 146. *gabonensis*, p. 148.
*n'''*. Head black, darker than the back, and forming a cap ..... *arsinoë*, p. 148.
*i''*. Throat white; under tail-coverts white, tinged with yellow.
*o'''*. Eyebrow and nape white ..... *sinensis*, p. 149.
*p'''*. Eyebrow and nape black like the crown ..... *hainanus*, p. 150.
*k''*. Throat dull whitish, or light ashy, or ashy brown.
*q'''*. Ear-coverts with narrow shaft-lines.
*q*⁴. Ashy brown above, without olive-green shading; streaks on ear-coverts very distinct and silvery white; under tail-coverts like the abdomen ..... *blanfordi*, p. 151.
*r*⁴. Dark olive-brown above; head darker; streaks on ear-coverts not so distinct; under tail-coverts olive-yellow or saffron, differing from abdomen, which is whitish.
*c*⁵. Forehead uniform with crown .. *plumosus*, p. 152.
*d*⁵. Forehead greyish, the feathers edged conspicuously with ashy grey ..... *cinereifrons*, p. 153.
*r'''*. Ear-coverts uniform.
*s*⁴. No orange eyelid; tail dark brown; throat yellowish or fulvescent; wing 2·8–3·4 inches ..... *simplex*, p. 153.
*t*⁴. An orange-buff eyelid; tail somewhat rufescent brown; throat light ashy *pusillus*, p. 155.
*f'*. Breast distinctly streaked with white; throat white.
*l''*. Upper surface olive-green, streaked with white shaft-lines; no bright ear-spot ..... *leucogrammicus*, p. 155.
*m''*. Upper surface uniform; behind the ear-coverts a bright yellow spot ..... *tympanis*, p. 156.

### 1. Pycnonotus hæmorrhous.

Le Merle hupé du Cap de Bonne Espérance, *Briss. Orn.* ii. p. 257, pl. xx. fig. 2.
Turdus cafer, *Linn. Syst. Nat.* i. p. 295 (*ex Briss.*).
Red-vented Warbler, *Brown, Ill. Zool.* pl. 31. fig. 1.
Turdus fuscus, *P. L. S. Müll. Syst. Nat.*, Anhang, p. 142.
Red-vented Flycatcher, *Lath. Gen. Syn.* ii. pt. 1, p. 335 (*ex Brown*).
Muscicapa hæmorrhous, *Gm. Syst. Nat.* i. p. 941 (*ex Brown*).
Le Curouge, *Levaill. Ois. d'Afr.* iii. p. 44, pl. cvii. fig. 1; *Sundev. Crit. om Levaill.* p. 36.
Hæmatornis hæmorrhous, *Swains. Faun. Bor.-Amer., Birds,* p. 485.
Ixos cafer, *Sykes, P. Z. S.* 1832, p. 88.
Hæmatornis cafer, *Jerd. Madr. Journ.* x. p. 298.
Hæmatornis pusillus, *Blyth, J. A. S. Beng.* x. p. 841.
Ixos pusillus, *Blyth, J. A. S. Beng.* xi. p. 458.
Pycnonotus hæmorrhous, *Blyth, J. A. S. Beng.* xiv. p. 566, & xv. p. 50; *Gray, Gen. B.* i. p. 237; *Blyth, Cat. B. Mus. As. Soc.* p. 209; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 240; *Jerd. B. Ind.* ii. p. 94; *Ball, Str. F.* 1875, p. 292; *Legge, B. Ceylon,* p. 482.
Pycnonotus cafer, *Gray, Gen. B.* i. p. 237; *Gray, Hand-l. B.* i. p. 269, no. 3930.
Pycnonotus pusillus, *Gray, Gen. B.* i. p. 237; *Blyth, Ibis,* 1867, p. 8; *Fairb. Str. F.* 1878, p. 258; *Hume, t. c.* p. 456; *Blanf. Str. F.* 1877, p. 246.
Ixos hæmorrhous, *Bp. Consp.* i. p. 265.
Pycnonotus chrysorrhoides, *Gray, Hand-l. B.* i. p. 270, no. 3956 (*nec Lafr.*); *Ball, Str. F.* 1874, p. 410.
Molpastes chrysorrhoides, *Hume, Str. F.* 1873, p. 378, note; *Adam, t. c.* p. 378.
Molpastes pusillus, *Hume, Nests & Eggs Ind. B.* p. 291; *Butler, Str. F.* 1875, p. 473.
Molpastes hæmorrhous, *Hume, Str. F* 1879, p. 98.

Head of *Pycnonotus hæmorrhous.*

*Adult.* Above brown, with very distinct margins of whity brown to all the feathers, strongly pronounced on the neck and wing-coverts, but absent on the lower back and rump, which are rather more ashy; upper tail-coverts white, slightly washed with pink: quills brown, edged with lighter brown; tail deep sepia, tipped with white and edged with pale brown; head, which is crested, entirely black, the ear-coverts uniform with the crown, the throat

also black; breast brown, all the feathers edged with white, more broadly on the lower breast, where the plumes may be said to be whitish with light-brown centres; abdomen white; flanks and thighs light brown; under tail-coverts bright crimson; under wing-coverts whitish, mottled with brown bases to the feathers, the edge of the wing hoary; "bill black; legs and feet dark or sepia-brown; iris deep brown" (*Legge*). Total length 7 inches, culmen 0·75, wing 3·4, tail 3·4, tarsus 0·8.

The Madras Red-vented Bulbul inhabits Ceylon, Southern and Central India, not ranging into the Himalayas, but extending through Jodpoor, Cutch, and Kattiawar into Sindh.

| | | |
|---|---|---|
| *a*. Ad. sk. | India (*As. Soc.*). | India Museum. (No. 356, spec. *d*, of H. & M. Cat. *l. c.*) |
| *b*, *c*. Ad. sk. | India. | J. R. Reeves, Esq. [P.]. |
| *d*. ♂ ad. sk. | Mount Aboo, July 16, 1868 (*G. King*). | Dr. J. Scully [P.]. |
| *e*, *f*. Ad. sk. | Deccan (*Sykes*). | India Museum. |
| *g*, *h*. Juv. sk. | Malabar. | |
| *i*. Ad. sk. | Malabar. | Purchased. |
| *k*. Ad. sk. | Mysore. | India Museum. |
| *l*, *m*. Ad. sk. | Coorg. | India Museum. |
| *n*. Ad. sk. | Khandeish. | India Museum. |
| *o*. Ad. sk. | Saugor (*W. T. Hooper*). | India Museum. |
| *p*, *q*, *r*. Ad. sk. | Kamptee. | Dr. B. Hinde [P.]. |
| *s*. ♀ ad. sk. | Chanda, Feb. 23, 1870. | W. T. Blanford, Esq. [P.]. |
| *t*. Ad. sk. | Behar. | B. H. Hodgson, Esq. [P.]. |
| *u*. Ad. sk. | N. Bengal. | Capt. Stackhouse Pinwill [P.]. |
| *v*, *w*. Ad. st. | Madras. | J. Gould, Esq. [P.]. |
| *x*. Juv. sk. | Madras. | India Museum. |
| *y*, *z*. ♂, *a'*. ♀ ad. sk. | Trevandrum, Travancore, Nov. 1878. | F. W. Bourdillon, Esq. [C.]. |
| *b'*, *c'*. ♂ ♀ ad. sk. | Ceylon (*Leiden Museum*). | F. Godman and O. Salvin, Esqrs. [P.]. |

### 2. Pycnonotus burmanicus.

Pycnonotus hæmorrhous, *Blyth & Wald. B. Burm.* p. 135 (*nec Gm.*).
Molpastes pygmæus, *Hume, Str. F.* 1875, p. 126.
Molpastes intermedius, *Hume, Str. F.* 1877, p. 35, et 1879, p. 98.
Molpastes pygæus, *Hume & Davison, Str. F.* 1878, p. 321.
Pycnonotus nigripileus, *Anders. Exp. Yun-nan*, p. 659 (*nec Blyth*).

*Adult male.* Above light brown, with ashy margins to the feathers of the back; the lower back and rump uniform ashy; the upper tail-coverts lighter ash-colour, but not white; wing-coverts coloured like the back, the ashy margins to the feathers rather broader; quills brown, with narrow ashy margins, the shafts reddish brown; tail brown, shading off darker towards the end, which is distinctly tipped with white on all but the two centre feathers; crown of head slightly crested, black, forming a cap, the hinder neck coloured like the back, but more distinctly ashy; feathers round the eye blackish; fore parts of cheeks also blackish brown; ear-coverts ashy brown; throat blackish brown: fore neck and breast light brown, all the feathers margined with whitish ash-colour; the centre of the body

buffy white; the flanks ashy brown, as also the thighs; under tail-coverts scarlet; under wing-coverts ashy, those on the edge of the wing brown, margined with greyish ash-colour. Total length 8 inches, culmen 0·9, wing 4, tail 3·8, tarsus 1.

*Adult female.* Similar to the male in colour. Total length 8·5 inches, culmen 0·9, wing 3·95, tail 4, tarsus 1.

The Burmese Red-vented Bulbul inhabits the Burmese countries, ranging from Cachar into Pegu.

| | | |
|---|---|---|
| *a.* Ad. sk. | Pegu. | W. T. Blanford, Esq. [P.]. |
| *b.* ♂ ad. sk. | Second Defile of the Irawady, March 5, 1875. | Dr. J. Anderson [C.]. |
| *c.* ♀ ad. sk. | Bhamau, Jan. 28, 1868. | Dr. J. Anderson [C.]. |
| *d.* ♂ ad. sk. | Ponsee, Kakhyen hills, March 11, 1868. | Dr. J. Anderson [C.]. |
| *e.* ♂ ad. sk. | Mungla, Sanda valley, May 19, 1868. | Dr. J. Anderson [C.]. |
| *f.* Ad. sk. | Tonghoo, Burmah. | Purchased. |

### 3. Pycnonotus nigripileus.

Pycnonotus nigropileus, *Blyth, J. A. S. Beng.* xvi. p. 472; *id. Cat. B. Mus. As. Soc.* p. 209; *Walden, P. Z. S.* 1866, p. 549; *Blyth, Ibis*, 1867, p. 9; *Blanf. l. c.* 1870, p. 467; *Blyth & Wald. B. Burm.* p. 135.

Ixos nigripileus, *Bp. Consp. Av.* i. p. 265.

Molpastes nigropileus, *Hume, Str. F.* 1873, p. 378, et 1874, p. 477; *Hume & Davis. Str. F.* 1878, p. 321; *Hume, Str. F.* 1879, p. 98.

*Adult.* General colour above light earthy brown, with ashy margins to the feathers, producing a distinctly mottled appearance above; lower back and rump more uniform; upper tail-coverts dull white, with a slight shade of pink; wing-coverts brown, with ashy margins like the back; greater and primary-coverts, as well as quills, dark brown, the primaries with narrow ashy margins; tail-feathers dark brown, lighter towards the base and tipped with white; crown of head black, forming a cap; lores, feathers round the eye, base of cheeks, and chin black; ear-coverts, cheeks, and throat pale earthy brown; fore neck and breast light brown, the feathers distinctly margined with ashy whitish, producing a slightly mottled appearance; abdomen dull white, the flanks light brown; under tail-coverts crimson; under wing-coverts and axillaries light ashy brown, the small coverts near the edge of the wing dark brown, with ashy margins; quills brown below, ashy along the inner webs; "bill, legs, feet, and claws black; irides deep brown" (*W. Davison*). Total length 7·5 inches, culmen 0·75, wing 3·55, tail 3·5, tarsus 0·85.

*Young.* More reddish brown than the adult, especially on the outer margins of the quills; tail-feathers tipped with brown, instead of white; cap browner than the adult, and the upper surface more uniform than in the latter; under tail-coverts very pale red.

The Tenasserim Red-vented Bulbul is confined to the Burmese countries. It is common in Tenasserim throughout the more open

and better-cultivated portions of the province north of Amherst, according to Hume.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | Tenasserim (*Helfer*). | India Museum. |
| *c*. ♂ juv. sk. | Kankaryit, British Burmah, June 11, 1878 (*J. Darling*). | A. O. Hume, Esq. |
| *d*. ♂ ad. sk. | Kankaryit, Aug. 28, 1878 (*J. Darling*). | A. O. Hume, Esq. |
| *e*. Ad. sk. | Karen hills, Oct. 1874 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |

### 4. Pycnonotus atricapillus.

Le Gobe-mouches à tête noire de la Chine, *Sonn. Voy. Ind. Orient.* ii. p. 197.

Muscicapa atricapilla, *Vieill. N. Dict. d'Hist. Nat.* xxi. p. 489 (*ex Sonn.*).

Hæmatornis chrysorrhoides, *Lafr. Rev. Zool.* 1845, p. 367.

Hæmatornis atricapillus, *A. Hay, Madr. Journ.* xiii. 1844, p. 160.

Ixus hæmorrhoa, *Cass. in Perry's Exped. Japan*, p. 241, pl. vi. (*nec Gm.*).

Pycnonotus hæmorrhous, *Swinh. Ibis*, 1860, pp. 57, 358 (*nec Gm.*).

Pycnonotus chrysorrhoides, *Sclater, Ibis*, 1860, p. 358, note; *Gray, Hand-l. B.* i. p. 270, no. 3956.

Ixus hæmorrhous, *Swinh. Ibis*, 1862, p. 307.

Ixus chrysorrhoides, *Swinh. P. Z. S.* 1863, p. 278, et 1871, p. 370; *David & Oustalet, Ois. Chine*, p. 142, pl. xlvi.

Molpastes chrysorrhoides, *Hume, Str. F.* 1874, p. 477; *Hume & Davison, Str. F.* 1878, p. 322; *Hume, Str. F.* 1879, p. 99.

Pycnonotus atricapillus, *Wald. in Blyth's B. Burm.* p. 136.

*Adult*. General colour above light ashy brown, with lighter ashy edges to the feathers, producing a slightly mottled appearance, the lower back uniform: rump and upper tail-coverts dull white, with pale brown tips to the longer ones, the longest pale brown; tail-feathers blackish brown, tipped with white spots, increasing in size towards the outer feathers, the bases of which are pale brown; least wing-coverts like the back, the rest of the coverts and quills brown, edged with pale ashy brown on the outer web; crown of head crested and nape black, as also the lores, feathers round the eye, fore part of cheeks, and anterior portion of ear-coverts, chin, and upper throat; remainder of ear-coverts hoary white, extending onto the sides of the neck; remainder of under surface of body light ashy brown, washed with slightly darker brown on the breast and sides of the body; under tail-coverts scarlet; under wing-coverts and axillaries pale fulvescent brown; quills brown below, fulvescent along the edge of the inner web; "legs, feet, and claws black; iris brown to dark brown" (*W. Davison*). Total length 7·5 inches, culmen 0·7, wing 3·75, tail 3·7, tarsus 0·9.

The Chinese Red-vented Bulbul occurs throughout Southern China, reaching to Fokien and even to Ningpo. It is also met with on the Burmese hills and the more hilly and richly-wooded parts of Tenasserim north of 13° N. lat.

| | | |
|---|---|---|
| *a*. Ad. sk. | Ningpo, China. | R. Swinhoe, Esq. [C.]. |
| *b*. Ad. sk. | Amoy. | R. Swinhoe, Esq. [C.]. |
| *c*. Ad. sk. | Karen Nee, March 18, 1874 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |
| *d*. ♂ ad. sk. | Karen Nee, March 23, 1874 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |

### 5. Pycnonotus pygæus.

Pycnonotus cafer, *M'Clell. P. Z. S.* 1839, p. 161 (*nec Linn.*).
Ixus cafer *vel* pygæus, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pl. 202 (no. 207); *id. in Gray's Zool. Misc.* p. 84.
Hæmatornis cafer, *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 89 (*nec L.*).
Pycnonotus bengalensis, *Blyth, J. A. S. Beng.* xiv. p. 566; *id. Cat. B. Mus. As. Soc.* p. 209.
Ixos pygæus, *Bp. Consp.* i. p. 265.
Pycnonotus pygæus, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 239; *Jerd. B. Ind.* ii. p. 93.
Pycnonotus pygmæus, *Gray, Hand-l. B.* i. p. 270, no. 3957.
Molpastes pygæus, *Hume, Str. F.* 1873, p. 378; *id. Nests & Eggs Ind. B.* p. 290; *id. Str. F.* 1875, p. 126; *id. Str. F.* 1879, p. 98; *Scully, t. c.* p. 297.

*Nestling*. Much more dingy in colour than the adult, and more uniform, the general coloration of the upper surface being ashy brown, with the head a little darker, the quills being margined with pale rufous-brown; underneath the colour is dull whitish, dusky brown on the throat and chest; the under tail-coverts are brown; the tail also is tipped with whity brown instead of white.

*Adult*. Above deep chocolate-brown, the feathers with margins of paler brown; the lower back and rump more ashy, mottled with subterminal marks of brown to each feather; upper tail-coverts pure white; tail dark sepia-brown, tipped with white; wings brown, all the coverts and quills edged with paler brown, inclining to whity brown on the greater coverts and primaries; head, which is very much crested, black, the nape also blackish; sides of face also black, the ear-coverts glossy chocolate-brown; throat and fore neck black, shading off into brown on the breast, the lower feathers of which are edged with whity brown; rest of under surface of body dull ashy white, somewhat mottled with dark-brown centres to the feathers, especially on the thighs; under tail-coverts crimson; under wing-coverts ashy white, with dark-brown centres to the feathers, the edge of the wing whitish with a slight pink shade; "bill black; feet dusky; iris dark brown" (*Scully*). Total length 7·8 inches, culmen 0·85, wing 0·85, tail 3·85, tarsus 0·95.

*Obs*. With regard to the different races or species of Red-vented Indian Bulbuls, I have the following remarks to make on the British-Museum series.

Specimens with a black cap and brownish-black ear-coverts (*P. hæmorrhous*), not to be distinguished from the crown of the head in colour, have been examined from Malabar (wing 3·7 inches), Coorg (wing 3·3–3·45 inches), Mysore (wing 3·55 inches), Kamptee

(wing 3·35–3·55 inches), Chanda (wing 3·25–3·45 inches), Leoni (wing 3·65 inches), Singbhoom (wing 3·65 inches), Behar (wing 3·7 inches). Some of these specimens have been sent to me by Dr. Anderson; and it is quite evident that no distinctions can be made upon the score of size, as the length of wing varies so much, nor is there any great difference in the colouring, excepting in the greater or less distinctness of the white edging to the wing-coverts.

Himalayan birds (*P. pygæus*) are easily distinguished by their chocolate-brown ear-coverts and by their long crests; the hinder neck is black, like the head; and this black colour occupies the sides of the neck and the throat, extending well onto the fore neck. Specimens are the same from Darjiling (*Jerdon*), Nepal (*Hodgson*), Kumaon (*Strachey*), Calcutta (*Mus. Ind.*), Cachar (*Mus. Ind.*), Upper Assam (*Reid*); but I notice a slight tendency towards *P. intermedius* in the Kumaon birds.

*P. intermedius*, from the Punjaub and N.W. Himalayas, seems to be a good distinguishable race or species. It resembles the Nepal bird in having brown ear-coverts; but the shade of black is not so strongly pronounced on the hind neck and chest; the abdomen is uniform greyish ash-colour, the brown shading of the chest not extending beyond that part, the breast being mottled with a few brown centres to the feathers; but this brown shade or mottling does not extend nearly so far as in the Nepal Bulbul. I have at present only seen a few specimens.

The Burmese and Tenasserim species seems to be undescribed; it is a distinctly *black-capped* species, but having brown ear-coverts as in *P. pygæus*. The black shade is confined to the throat, and the neck is brown all round, there being consequently no black shade near the ear-coverts.

The Common Red-vented Bulbul is found throughout Lower Bengal as far south as Midnapore, and the jungles stretching thence to Central India north of the Nerbudda. It ascends the Himalayas to a height of 7000 feet, and inhabits these mountains from Kumaon eastwards to Assam.

| | | |
|---|---|---|
| *a*. Juv. sk. | [India.] | India Museum. |
| *b*. Juv. sk. | Bengal (*Col. Tytler*). | India Museum. |
| *c*. Ad. sk. | Calcutta (*As. Soc.*). | India Museum. |
| *d, e, f*. Ad. sk. | Kumaon (*Col. Strachey*). | India Museum. |
| *g–l*. Ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. (Types of species.) |
| *m*. Pull. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *n, o*. Ad. sk. | Nepal (*B. H. Hodgson*). | India Museum. |
| *p*. ♀ ad. sk. | Khatmandu, Nepal, April 19, 1877. | Dr. J. Scully [P.]. |
| *q*. Ad. sk. | Darjiling. | India Museum. |
| *r*. Ad. sk. | Darjiling (*Dr. Jerdon*). | C. Bygrave Wharton, Esq. [P.]. |
| *s*. Ad. sk. | Darjiling (*Eccles*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *t, u, v*. Ad. sk. | Nazeerah, Upper Assam (*Dr. Reid*). | R. B. Sharpe, Esq. [P.]. |
| *w*. Ad. sk. | Assam (*M'Clelland*). | India Museum. |
| *x*. Ad. sk. | Bootan (*Pemberton*). | India Museum. |

### 6. Pycnonotus intermedius.

Pycnonotus intermedius, *Jerd. B. Ind.* ii. p. 95 (*ex A. Hay, MS.*); *Blyth, Ibis*, 1867, p. 9; *Beavan, t. c.* p. 441.
Pycnonotus pygmæus, *Cock & Marsh. Str. F.* 1873, p. 355.
Molpastes intermedius, *Hume, Str. F.* 1873, p. 378.

*Adult.* General colour above dark brown, mottled with ashy margins to the feathers, the rump a little more uniform; upper tail-coverts dull white, faintly washed with brown; upper wing-coverts brown, edged rather broadly with white; quills brown, externally margined with whity brown; head crested, glossy black, the nape and hind neck, as well as the sides of the latter, shaded with black, so that no cap is perceptible; lores, feathers round the eye, cheeks, and throat black, shading off on the fore neck into the brown of the chest; remainder of the under surface of body ashy whitish, the breast mottled with brown, the feathers being of the latter colour with ashy-whitish margins; flanks light ashy brown, streaked with darker brown; under tail-coverts crimson; thighs brown, margined with ashy whitish; under wing-coverts dull whitish, with brown bases to the outer ones, causing a slightly mottled appearance; axillaries light ashy brown; quills brown below, light ashy brown along the edge of the inner web. Total length 8·5 inches, culmen 0·85, wing 3·9, tail 3·85, tarsus 0·95.

Pinwill's Red-vented Bulbul replaces the common Himalayan form in the North-western Himalayas, Cashmere, and extends into Afghanistan.

| | | |
|---|---|---|
| *a.* Ad. sk. | India. | |
| *b.* Ad. sk. | Himalayas (*Paris Exhibition*). | India Museum. |
| *c.* ♀ ad. sk. | N.W. Himalayas. | Capt. Stackhouse Pinwill [P.]. |
| *d.* Ad. sk. | Cashmere. | Purchased. |
| *e.* Ad. sk. | Afghanistan (*Griffith*). | India Museum. |
| *f.* Ad. st. | Himalayas. | J. R. Reeves, Esq. [P.]. |

### 7. Pycnonotus capensis.

Le Merle brun du Cap de Bonne Espérance, *Briss. Orn.* ii. p. 259, pl. 27. fig. 3.
Turdus capensis, *Linn. Syst. Nat.* i. p. 295.
Le Brunet du Cap de Bonne Espérance, *Montb. Hist. Nat. Ois.* iii. p. 390.
Le Brunet, *Levaill. Ois. d'Afr.* iii. p. 105, pl. 36; *Sundev. Crit. om Levaill.* p. 35.
Pycnonotus capensis, *Gray, List Gen. B.* 1840, p. 29; *id. Gen. B.* i. p. 237; *Cab. Mus. Hein.* Th. i. p. 107; *Layard, B. S. Afr.* p. 138; *Gray, Hand-l. B.* i. p. 268, no. 3924; *Finsch & Hartl. Vög. Ostafr.* p. 299; *Shelley, Ibis*, 1875, p. 74; *Newton, ed. Yarr. Brit. B.* p. 247; *Sharpe, ed. Layard's B. S. Afr.* p. 267; *Dresser, B. Eur.* pt. xxxix.
Turdus aurigaster, *Yarrell, Brit. B. Suppl.* i. p. 15; *Thomps. B. Irel.* i. p. 153.
Pycnonotus chrysorrhœus, *Thomps. Ann. Nat. Hist.* xv. p. 308 (*nec Temm.*).

Ixus capensis, *Bp. Consp.* i. p. 266.
Pycnonotus aurigaster *Gray, Cat. Brit. B.* 1863, p. 78 (*nec V.*).

*Adult.* General colour above brown, a little blacker on the head, sides of face, and throat; wing-coverts like the back; quills dark brown, with faintly indicated margins of paler brown; tail-feathers dark brown, with narrow whity-brown tips; crown of head slightly darker brown than the back, as also the sides of face and throat, the ear-coverts and region of the eye blackish; remainder of under surface of body brown, inclining to dull whitish near the vent; under tail-coverts yellow; under wing-coverts and axillaries brown, the edge of the wing light brown; quills dark brown below, paler along the edge of the inner web; "eyelid vinous red; bill and legs blackish; iris reddish brown" (*G. E. Shelley*). Total length 7·6 inches, culmen 0·7, wing 3·65, tail 3·55, tarsus 0·85.

The colouring of this species varies from an earthy brown to a chocolate-brown, and I have examined specimens moulting from one into the other; but I am not certain whether the paler brown dress is that of the young bird, or whether the dark-brown feathering is the normal state of the bird in perfect plumage just after the moult. Either case is possible, as the pale colouring might be the result of abrasion of the feathers.

The Cape Yellow-vented Bulbul is strictly an inhabitant of South Africa, where it is confined to the Cape Colony. Notwithstanding the apparently circumstantial evidence on which its occurrence in Ireland is based, I can imagine no bird more unlikely to have been met with there in a wild state. The bird may have been a caged specimen; but even this appears improbable.

| | | |
|---|---|---|
| *a.* Ad. sk. | South Africa. | Purchased. |
| *b.* Ad. sk. | South Africa. | R. B. Sharpe, Esq. |
| *c, d.* Ad. sk. | South Africa (*E. L. Layard*). | R. B. Sharpe, Esq. |
| *e.* ♂ ad. sk. | Knysna, Jan. 6, 1866 (*C. J. Andersson*). | R. B. Sharpe, Esq. |
| *f, g, h.* Ad. sk. | George District (*H. Atmore*). | R. B. Sharpe, Esq. |
| *i.* Ad. sk. | Port Elizabeth. | R. B. Sharpe, Esq. |
| *k.* Ad. st. | Cape Colony. | G. Campbell, Esq. |

### 8. Pycnonotus tricolor.

Pycnonotus capensis, *Strickl. & Sclater, Contr. Orn.* 1852, p. 120.
Pycnonotus auriventris, *Hartl. J. f. O.* 1861, p. 166.
Ixus tricolor, *Hartl. Ibis*, 1862, p. 341.
Pycnonotus tricolor, *Gray, Hand-l. B.* i. p. 269, no. 3932; *Finsch & Hartl. Vög. Ostafr.* p. 299; *Sharpe, Cat. Afr. B.* p. 23 (pt.); *id. P. Z. S.* 1871, p. 131, pl. vii. fig. 2; *Gurney, in Anderss. B. Dam. Ld.* p. 120; *Sharpe & Bouv. Bull. Soc. Zool. France*, 1876, p. 44; *Reichen. J. f. O.* 1877, p. 25; *Bocage, Orn. Angola*, p. 244.

*Adult male.* General colour above light earthy brown, the upper tail-coverts rather darker brown, obscurely margined with a shade of dull olive; wing-coverts and quills all darker brown than the back, narrowly margined with lighter olivaceous brown; tail blackish brown, shading off into paler greyish brown at the tips of

the feathers; crown of head and nape black, forming a well-defined cap, the adjacent portions of the neck rather paler brown; lores, fore part of cheeks, region of the eye, and ear-coverts blackish, the rest of the sides of the face and throat dark brown, shading off paler on the fore neck and chest, which are earthy brown, very little darker than the back; rest of under surface white, the vent-feathers shaded with yellow, the under tail-coverts bright yellow; the plumes of the lower throat edged with whitish, and the adjacent white plumes of the breast with brown bases, the flanks also washed with pale brown: thighs whitish, washed with yellow, the hinder part brown; under wing-coverts very pale brown, washed with yellow, the edge of the wing whitish; the lower series of coverts ashy brown, edged with greyish white along the inner web; bill black; legs black; iris brown. Total length 7·6 inches, culmen 0·8, wing 3·7, tail 3·6, tarsus 0·95.

*Young.* Similar to the adult, but more dusky and much paler brown; the head not so blackish as in the adult, but the belly white. In fact the bird may be described as being like the adult, and having the colours distributed exactly in the same way; but the latter are everywhere much paler, and the margins to the coverts and quills are rufous-brown.

Monteiro's Yellow-vented Bulbul inhabits the Congo region in Western Africa, extending through Angola into Damara Land.

| | | |
|---|---|---|
| *a, b.* Ad. sk. | Congo. | (Types of species.) |
| *c.* Ad. sk. | Congo. | Commander Sperling [P.]. |
| *d.* Ad. sk. | Kabinda, Congo, August. | Commander Sperling [P.]. |
| *e.* Ad. sk. | Angola. | J. J. Monteiro, Esq. [C.]. |
| *f.* Ad. sk. | Angola (*Hamilton*). | R. B. Sharpe, Esq. |
| *g.* ♀ ad. sk. | Cabangombe, Nov. 1867 (*Anchieta*). | R. B. Sharpe, Esq. |

### 9. Pycnonotus layardi.

Pycnonotus nigricans (*nec V.*), *Kirk, Ibis*, 1864, p. 318; *Sperling, Ibis*, 1868, p. 290; *Finsch & Hartl. Vög. Ostafr.* p. 297; *Sharpe, P. Z. S.* 1873, p. 70; *Shelley, Ibis*, 1875, p. 74; *Bocage, Orn. Angola*, p. 242.

Pycnonotus tricolor (*nec Hartl.*), *Sharpe, Cat. Afr. B.* p. 23; *Layard, Ibis*, 1871, p. 229; *Sharpe, ed. Layard's B. S. Afr.* p. 208.

Pycnonotus layardi, *Gurney, Ibis*, 1879, p. 390.

*Adult male* (type of species). General colour above light earthy brown, somewhat more ashy brown on the hinder neck and sides of neck; lesser and median wing-coverts like the back; greater and primary-coverts as well as the quills dark brown, margined with lighter brown; upper tail-coverts brown, with a slight tinge of olive on the edges of the feathers; tail-feathers dark brown, with paler ends, broader on the external rectrices; crown of head black, forming a distinct cap; lores, fore part of cheeks, and region of the eye blackish; ear-coverts dark chocolate-brown, as also the hinder part of the cheeks; throat and fore neck dark brown, the chin and sides of the upper throat blackish; remainder of under surface

ashy white, browner on the flanks and sides of the body, the breast mottled with brown bases to the feathers; thighs brown; under tail-coverts bright yellow; under wing-coverts and axillaries light ashy brown, tinged with yellow on the edge of the wing; quills brown below, ashy brown along the edge of the inner web; "eyelid black" (*E. C. Buxton*); "bill, tarsi, and feet black; iris dark umber" (*T. Ayres*). Total length 7·8 inches, culmen 0·8, wing 3·75, tail 3·4, tarsus 0·9. (*Mus. J. H. Gurney.*)

*Adult female.* Similar in plumage to the male. Total length 7·5 inches, culmen 0·8, wing 3·7, tail 3·3, tarsus 0·85. (*Mus. J. H. Gurney.*)

The present species in breeding-plumage always looks much darker than in the winter plumage, when the light edges to the feathers are more perfect, and a slight shade of olive, scarcely perceptible, pervades the upper surface. The summer dress seems to be merely an intensifying of the winter one, by reason of the disappearance of the light margins to the feathers above and below.

Specimens from the east coast of Africa are apparently identical in plumage, but seem to be somewhat smaller in dimensions.

| | | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|---|
| *a* | Mombas (*Wakefield*) ..... | 7·0 | 0·8 | 3·4 | 3·1 | 0·85 |
| *b*. | „ „ ..... | 7·3 | 0·75 | 3·3 | 3·0 | 0·8 |
| *c*. ♂ | „ (*Hildebrandt*) .... | 7·0 | 0·75 | 3·35 | 3·1 | 0·85 |

*Young* (Kingwilliamstown; H. Trevelyan). Similar in plumage to the adult, but rather more fluffy. The general colour more of a reddish brown, the wing-coverts and quills edged with the latter colour; head dingy brown instead of black; under surface of body duller than in the adult, and much lighter yellow on the under tail-coverts.

Layard's Yellow-vented Bulbul inhabits the eastern districts of the Cape Colony, ranging through Natal and the Transvaal to Damara Land on the west and the Zambesi on the east, whence it extends up the east coast as far as Mombas, decreasing in size in Eastern Africa.

| | | |
|---|---|---|
| *a*. ♂ ad. sk. | Grahamstown (*T. C. Atmore*). | R. B. Sharpe, Esq. |
| *b*. ♀ ad. sk. | Eland's Post (*T. C. Atmore*). | R. B. Sharpe, Esq. |
| *c*. Ad. sk. | Caffraria (*Schomburgk*). | R. B. Sharpe, Esq. |
| *d*. Ad., *e*, *f*. Juv. sk. | Kingwilliamstown. | Lieut. H. Trevelyan [P.]. |
| *g*. Ad. sk. | Kingwilliamstown. | Lieut. Anstey [P.]. |
| *h*. ♀ ad. sk. | Natal. | Dr. Gueinzius [C.]. |
| *i*. Ad. sk. | Natal. | R. B. Sharpe, Esq. |
| *k*. Ad. sk. | Natal. | T. Ayres, Esq. [C.]. |
| *l*. Ad. sk. | Durban, April 23 (*F. Oates*). | C. G. & W. Oates, Esqrs. [P.]. |
| *m*. ♀ ad. sk. | Between Pretoria and Bamangwato, July (*F. Oates*). | C. G. & W. Oates, Esqrs. [P.]. |

| | | |
|---|---|---|
| *n*. ♂ ad. sk. | Macamac, Transvaal, Sept. 22, 1874 (*T. Ayres*). | J. H. Gurney, Esq. |
| *o*. Ad. sk. | Lydenburg. | F. A. Barratt, Esq. |
| *p*, *q*. Ad. sk. | Tete, Zambesi. | Dr. Kirk [C.]. |
| *r*. Ad. sk. | Shupanga, Zambesi. | Dr. Kirk [C.]. |
| *s*. Ad. sk. | Damara Land (*C. J. Andersson*). | R. B. Sharpe, Esq. |
| *t*. ♂ ad. sk. | Ovaquenyama, Damara Land, June 2, 1867 (*C. J. Andersson*). | R. B. Sharpe, Esq. |
| *u*. Ad. sk. | Zanzibar. | Dr. Kirk [C.]. |
| *v*, *w*. Ad. sk. | Mombas (*Wakefield*). | R. B. Sharpe, Esq. [P.]. |
| *x*. ♂ ad. sk. | Mombas. | Dr. Hildebrandt [C.]. |

### 10. Pycnonotus nigricans.

Le Brunoir, *Levaill. Ois. d'Afr.* iii. p. 38, pl. 106. fig. 4; *Sundev. Crit. om Levaill.* p. 36.

Turdus nigricans, *Vieill. Nouv. Dict. d'Hist. Nat.* xx. p. 253; *Bonn. et Vieill. Enc. Méth.* p. 653.

Turdus capensis, *Licht. Verz. Doubl.* p. 653 (*nec L.*).

Ixos levaillantii, *Temm. Tabl. Méth.* p. 297.

Pycnonotus nigricans, *Gray, Gen. B.* i. p. 237; *Cab. Mus. Hein.* Th. i. p. 107; *Gurney, Ibis*, 1860, p. 209; *Layard, B. S. Afr.* p. 138; *Sharpe, Cat. Afr. B.* p. 23; *Gurney, in Anderss. B. Dam. Ld.* p. 119; *Ayres, Ibis*, 1873, p. 282; *Buckley, Ibis*, 1874, p. 369.

Pycnonotus capensis (pt.), *Sharpe, ed, Layard's B. S. Afr.* p. 207.

Ixus nigricans, *Bp. Consp.* i. p. 267.

Head of *Pycnonotus nigricans*, to show the wattled eyelid.

*Adult male.* General colour above ashy brown, the wing-coverts like the back; greater coverts and quills dark brown, with margins of lighter ashy brown; upper tail-coverts rather darker brown than the back, with paler brown margins; tail-feathers dark brown, faintly tipped with ashy brown, rather more broadly on the outer feathers; crown and nape black, forming a cap; ear-coverts, sides of face, and throat black, fading off into the dark brown of the fore neck and chest, the feathers of the latter being mottled, the bases brown, and the margins ashy whitish, like the rest of the under surface; sides of body, flanks, and thighs brown; under tail-coverts bright yellow; under wing-coverts and axillaries light brown, the edge of the wing slightly washed with yellow; quills dark brown below, ashy brown along the edge of the inner web; "beak and legs black; iris dark claret" (*P. E. Buckley*); "iris pale yellowish red" (*C. J. Andersson*). Total length 6·9 inches, culmen 0·7, wing 3·55, tail 3·1, tarsus 0·8.

*Adult female.* Similar in colour to the male. Total length 6·6 inches, culmen 0·7, wing 3·6, tail 3·2, tarsus 0·8.

Levaillant's Yellow-vented Bulbul ranges throughout South Africa, from the eastern parts of the Cape Colony, through Natal and the Transvaal to Damara Land.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Hope Town, May 1871 (*T. C. Atmore*). | R. B. Sharpe, Esq. |
| *b.* Imm. sk. | Natal. | R. B. Sharpe, Esq. |
| *c, d.* ♂ ad. sk. | Transvaal (*T. Ayres*). | R. B. Sharpe, Esq. |
| *e.* ♀ ad. sk. | Crocodile River, Transvaal, July (*F. Oates*). | C. G. & W. Oates, Esqrs. [P.]. |
| *f.* ♂ ad. sk. | Otjimbinque, Damara Land, June 22, 1866 (*C. J. Andersson*). | R. B. Sharpe, Esq. |
| *g.* ♀ ad. sk. | Otjimbinque, July 29, 1866 (*C. J. Andersson*). | R. B. Sharpe, Esq. |
| *h.* Ad. sk. | Otjimbinque, Sept. 14, 1864 (*C. J. Andersson*). | R. B. Sharpe, Esq. |

### 11. Pycnonotus xanthopygus.

? Le Merle à cul jaune, *Daubent. Pl. Enl.* iv. pl. 317.
? Turdus tristis, *P. L. S. Müll. Syst. Nat.*, Anhang, p. 145.
Ixus xanthopygos, *Hempr. & Ehr. Symb. Phys.* fol. bb; *Rüpp. Neue Wirb., Vög.* p. 83.
Pycnonotus levaillantii, *Rüpp. Syst. Uebers.* p. 60 (*nec Temm.*).
Ixus vaillantii, *Brehm, Voyelf.* p. 221 (*nec Temm.*).
Ixus vallombrosæ, *Bp. C. R.* xlii. p. 766.
Ixus xanthopygius, *Tristr. Ibis*, 1859, p. 30; *id. Ibis*, 1865, p. 81, 1866, p. 292.
Ixus aurigaster, *Sclater, P. Z. S.* 1862, p. 12; *Antin. Cat. descrr. Ucc.* p. 43.
Pycnonotus vallombrosæ, *Hengl. J. f. O.* 1867, p. 203.
Pycnonotus nigricans, *Hengl. Orn. N.O.-Afr.* p. 397; *Hartl. Griech. Jahreszeit.* iii. p. 229 (*teste Dresser*).
Pycnonotus tristis, *Gray, Hand-l. B.* i. p. 268, no. 3923.
Pycnonotus xanthopygos, *Gray, Hand-l. B.* i. p. 269, no. 3928; *Shelley, B. Egypt*, p. 68; *Dresser, B. Eur.* pt. xxxix.

*Adult male.* General colour light ashy brown, greyer about the hind neck; quills ashy brown, rather darker than the back and narrowly edged with paler brown; upper tail-coverts darker brown than the back, margined with dull olive-yellow; tail dark sepia-brown, indistinctly tipped with ashy grey, more broadly on the outer feathers; crown of head as far as the nape, entire sides of head, and throat jet-black, the fore neck brown, with greyish edgings to the feathers of the lower part; behind the ear-coverts a slight shade of silvery white; sides of neck and entire under surface of body light ashy grey, a little whiter on the centre of the abdomen; under tail-coverts bright yellow; under wing-coverts and vent-feathers whitish washed with yellow; thighs ashy brown, also washed with yellow: under wing-coverts ashy brown, the edge of the wing washed with yellow; bill and legs black; iris dark brown: eyelid grey. Total length 8·3 inches, culmen 0·75, wing 3·8, tail 3·85, tarsus 0·85.

*Adult female.* Similar to the male. Total length 8·4 inches, culmen 0·75, wing 3·65, tail 3·8, tarsus 0·9.

The Palestine Yellow-vented Bulbul is found all over North-eastern Africa, Arabia Petræa, Syria, and Palestine, and in the islands of Cyprus, Rhodes, and the Cyclades.

| | | | |
|---|---|---|---|
| *a.* ♂ ad. sk. | Sidon. | | Canon Tristram [C.]. |
| *b.* ♀ ad. sk. | Jericho. | | Canon Tristram [C.]. |
| *c.* ♀ ad. sk. | Sidon, Nov. 30, 1862 (*Canon Tristram*). | | F. Godman and O. Salvin, Esqrs. [P.]. |

### 12. Pycnonotus leucotis.

Ixos leucotis, *Gould, P. Z. S.* 1836, p. 6; *Bp. Consp.* i. p. 265; *De Filippi, Viagg. Pers.* p. 347.

Pycnonotus leucotis, *Blyth, J. A. S. Beng.* xiv. p. 567; *Gray, Gen. B.* i. p. 237; *Blyth, Cat. B. Mus. As. Soc.* p. 209; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 242; *Gray, Hand-l. B.* i. p. 271, no. 3965; *Blanf. East. Persia*, ii. p. 218.

Otocompsa leucotis, *Jerd. B. Ind.* ii. p. 91; *Hume, Str. F.* 1873, p. 181; *id. Nests and Eggs Ind. B.* p. 286; *Adam, t. c.* p. 378; *Ball, Str. F.* 1875, p. 206; *Butler, t. c.* p. 473; *Hume, Str. F.* 1879, p. 98.

*Adult.* General colour above pale ashy brown, somewhat lighter towards the rump; outside upper tail-coverts whity brown, ashy brown in the centre; wings like the back, the greater coverts and quills externally edged with paler ashy brown; tail-feathers dark brown, paler brown towards their bases, and edged narrowly with lighter brown, all conspicuously tipped with white spots, which become larger towards the outer feathers; crown of head, lores, and feathers round the eye and at the base of the bill, fore part of cheeks, and throat black; ear-coverts and hinder part of cheeks white, separated from the brown of the neck by a narrow black line which connects the black throat with the black head; breast and sides of body pale ashy brown, the centre of the body ashy whitish; thighs ashy brown; under tail-coverts bright golden yellow; under wing-coverts ashy brown, edged with white; quills brown below, ashy brown along the edge of the inner web; "iris dark brown" (*Adams*). Total length 6·9 inches, culmen 0·55, wing 3·15, tail 3·15, tarsus 0·8.

There is no difference in the colour of the sexes.

*Young.* Rather paler and more rufescent than the adult, especially on the upper tail-coverts and outer aspect of wings; the head brown instead of black, which colour is confined to the throat, fore part of cheeks, and lores; under tail-coverts yellowish buff.

A pair of birds collected by Col. St. John near Shiraz measure as follows:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| ♂ ad. Shiraz (*St. John*) .. | 7·5 | 0·7 | 3·65 | 3·6 | 0·9 |
| ♀ ad. „ „ .. | 7·0 | 0·6 | 3·2 | 3·1 | 0·8 |

The White-eared Bulbul inhabits open bush-country from Persia, throughout Baluchistan and Scinde into N.W. India, and as far east as Saugor in Central India.

| | | |
|---|---|---|
| *a*. Ad. sk. | India. | Capt. Boys [C.]. |
| *b*, *c*. Ad. sk. | Calpee, N.W. India. | Capt. Stackhouse Pinwill [P.]. |
| *d*. Ad. sk. | Jodhpoor, Nov. 4, 1868 (*G. King*). | Dr. J. Scully [P.]. |
| *e*, *f*. Ad. sk. | Hyderabad, Scinde (*Dr. H. Gould*). | India Museum. |
| *g*, *h*, *i*. Ad. sk. | Shikarpore, Afghanistan (*W. Griffith*). | India Museum. |
| *k*. ♀ ad. sk. | Bahn Kelat, Persian Baluchistan, Feb. 2, 1872. | W. T. Blanford, Esq. [C.]. |
| *l*, *m*. ♂ ♀ ad. sk. | Near Shiraz, 4500 feet, July 1870. | Col. St. John [C.]. |
| *n*. ♂ ad. sk. | Oak-forest near Shiraz, 7000 feet. | Col. St. John [C.]. |
| *o*. Ad. sk. | Persia. | K. Loftus, Esq. [C.]. |
| *p*. Ad. st. | India. | E. Wilson, Esq. [P.]. |

### 13. Pycnonotus aurigaster.

The Yellow-vented Flycatcher, *Brown, Ill. Zool.* p. 76, pl. 31. fig. 1.
Red-vented Flycatcher, var. A, *Lath. Gen. Syn.* ii. pt. i. p. 335.
Muscicapa hæmorrhousa, var. *β*, *Gm. Syst. Nat.* i. p. 941; *Lath. Ind. Orn.* i. p. 475.
Le Cudor, *Levaill. Ois. d'Afr.* iii. p. 46, pl. 107. fig. 2; *Sundev. Crit. om Levaill.* p. 36.
Turdus aurigaster, *Vieill. Nouv. Dict. d'Hist. Nat.* xx. p. 258; *Bonn. et Vieill. Enc. Méth.* ii. p. 657.
Turdus hæmorrhous, *Horsf. Trans. Linn. Soc.* xiii. p. 147 (*nec Gm.*).
Brachypus chrysorrhœus, *Steph. Gen. Zool.* xiv. p. 189 (*ex Levaill.*).
Ixus hæmorrhous, *Vigors, Mem. Raffl., App.* p. 661 (*nec Gm.*).
Hæmatornis chrysorrhœus, *Swains. Classif. B.* ii. p. 338.
Pycnonotus crocorrhous, *Strickl. Ann. Nat. Hist.* xiii. p. 412; *Blyth, J. A. S. Beng.* xiv. p. 567; *Gray, Gen. B.* i. p. 237; *Horsf. & Moore, Cat. B. Mus. E.I.Co.* i. p. 245; *Gray, Hand-l. B.* i. p. 270, no. 3958; *Nichols. Ibis*, 1879, p. 168, 1881, p. 148.
Pycnonotus aurigaster, *Gray, Gen. B.* i. p. 237; *Von Müll. J. f. O.* 1855, p. 394; *Layard, B. S. Afr.* p. 139.
Ixus chrysorrhœus, *Bp. Consp.* i. p. 266.
Ixus aurigaster, *Bp. Consp.* i. p. 267.
Brachypus aurigaster, *Cab. Mus. Hein.* Th. i. p. 108.
Pycnonotus aurigularis (*lapsu*), *Layard, Ibis*, 1869, p. 73.
Molpastes crocorrhous, *Hume, Str. F.* 1873, p. 378.

*Adult male.* General colour above brown, mottled with hoary-grey edgings to the feathers; the lower back uniform brown, the rump and upper tail-coverts white, the longer coverts slightly shaded with ashy brown; wing-coverts dark brown, edged with hoary grey like the mantle; greater coverts and quills dark brown with lighter brown edges; tail-feathers dark brown, tipped with dull white, the feathers lighter brown towards the base; crown of head black, forming a cap; hinder neck hoary grey, streaked with the dark-brown centres to the feathers; lores, feathers below the

eye, fore part of cheeks, and chin black; remainder of throat and ear-coverts white; fore neck, breast, and sides of body pale ashy brown, the centre of the abdomen white; vent and under tail-coverts bright yellow; thighs light ashy brown, like the flanks; under wing-coverts and axillaries pale ashy brown, with whity-brown margins; quills brown below, ashy along the edge of the inner web; "irides brown or dark red" (*H. O. Forbes*). Total length 8 inches, culmen 0·8, wing 3·6, tail 3·45, tarsus 0·85.

*Adult female.* Similar in plumage to the male. Total length 8·3 inches, culmen 0·7, wing 3·6, tail 3·6, tarsus 0·85.

The *nestling* reproduces the colouring of the adult, but has the under tail-coverts only faintly tinged with yellow. The general coloration is everywhere paler, the upper surface more uniform, and the cap of not such a deep black. (*F. Nicholson.*)

The Gold-vented Bulbul is apparently confined to the island of Java.

| | | |
|---|---|---|
| *a, b.* ♀ ad. sk. | Java (*Leiden Museum*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *c, d.* Ad. sk. | W. Java (*E. C. Buxton*). | F. Nicholson, Esq. [P.]. |
| *e.* ♀ ad. sk. | W. Java. | A. R. Wallace, Esq. [C.]. |
| *f.* ♂ ad. sk. | E. Java. | A. R. Wallace, Esq. [C.]. |
| *g.* Ad. sk. | Java. | Purchased. |
| *h.* Ad. st. | Java. | J. Gould, Esq. |

### 14. Pycnonotus germaini.

Ixus germaini, *Oustalet, Bull. Soc. Philom. Paris* (7), ii. p. 54 (1878).

*Adult.* Very similar to *P. crocorrhous*, Strickl., but distinguished by its uniform back, which is not mottled with black centres to the feathers, its duller black head, and especially by the black on the throat, which is confined to the chin and the sides of the upper throat, not extending down so far as in the Java bird. Total length 7 inches, culmen 0·7, wing 3·5, tail 3·1, tarsus 0·7. (*Mus. Paris.*)

The type was a younger bird, rather duller in colour, with a browner head.

Germain's Bulbul is as yet only known from the mountains of Laos, Cambodia.

### 15. Pycnonotus bimaculatus.

Turdus bimaculatus, *Horsf. Trans. Linn. Soc.* xiii. p. 147.
Lanius bimaculatus, *Less. Cent. Zool.* pl. 75.
Hæmatornis bimaculatus, *Swains. Faun. Bor.-Amer., Birds*, p. 485.
Pycnonotus bimaculatus, *Blyth, J. A. S. Beng.* xiv. p. 567; *Gray, Gen. B.* i. p. 237; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 244; *Gray, Hand-l. B.* i. p. 269, no. 3941.
Brachypus bimaculatus, *Bp. Consp.* i. p. 263.

*Adult male.* General colour above brown, strongly shaded with yellowish olive; wing-coverts brown, as also the quills, all margined externally with yellowish olive; tail brown, with olive-yellow margins to the feathers, the outermost having a narrow

edging of white at the tip; head rather darker brown than the back, with lighter brown edges to the feathers, imparting a somewhat scaled appearance; lores blackish; round the eye a ring of orange-yellow; at the base of the nostril a longitudinal spot of bright orange above the lores; ear-coverts olive-yellow; cheeks and throat dark brown, slightly washed with yellow; the fore neck somewhat mottled, the feathers being brown with pale ashy margins; rest of under surface of body white, washed with yellow, the flanks washed with ashy brown; thighs brown, washed with olive-yellow; under wing-coverts and axillaries pale yellow or yellowish white, the edge of the wing brighter yellow; quills dusky brown below, yellowish white along the inner web. Total length 7·8 inches, culmen 0·7, wing 3·4, tail 3·5, tarsus 0·8.

*Adult female.* Similar in colour to the male. Total length 7·7 inches, culmen 0·7, wing 3·2, tail 3·4, tarsus 0·8.

The Orange-spotted Bulbul is only known from the islands of Java and Sumatra.

| | | |
|---|---|---|
| *a.* Ad. sk. | Java (*Dr. Horsfield*). | India Museum. (Type of species.) |
| *b.* ♂ ad. sk. | Java (*Leiden Museum*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *c, d.* ♂ ♀ ad. sk. | W. Java. | A. R. Wallace, Esq. [C.]. |
| *e.* Ad. st. | Java. | Purchased. |
| *f, g.* Ad. sk. | Sumatra. | Purchased. |

### 16. Pycnonotus xanthorrhous.

Pycnonotus xanthorrhous, *Anderson, Pr. A. S. Beng.* 1869, p. 265; *id. P. Z. S.* 1871, p. 214; *Blyth & Wald. B. Burm.* p. 135, note; *Anders. Exped. W. Yun-nan, Zool.* p. 658.

Ixus andersoni, *Swinh. Ann. & Mag. Nat. Hist.* (4) v. p. 175.

Ixus xanthorrhous, *Swinh. P. Z. S.* 1871, p. 369; *David & Oustalet, Ois. Chine,* p. 141, pl. 45.

*Adult male.* General colour above brown, the wing-coverts rather darker brown, margined with the same brown as the back; quills dark brown, with lighter brown edges, slightly tinged with olive; tail-feathers dark brown, the outer feathers with faint tips of whity brown; crown of head and nape glossy black, as also the lores, feathers round the eye, and a stripe along the cheeks; ear-coverts and hinder part of cheeks brown; throat and underparts white, with a band of brown across the chest; sides of body also brown; thighs golden brown; under tail-coverts golden yellow; under wing-coverts dark brown, those near the edge of the wing washed with yellow; axillaries pale fawn-brown; quills dark brown below, pale fawn-brown along the edge of the inner web; "bill black; feet blackish; iris brown" (*David*). Total length 7·6 inches, culmen 0·7, wing 3·65, tail 3·75, tarsus 0·85.

*Adult female.* Similar in colour to the male. Total length 8·1 inches, culmen 0·65, wing 3·4, tail 3·5, tarsus 0·75.

Anderson's Yellow-vented Bulbul occurs throughout the mountains of China and the hills separating Yun-nan from Burmah.

| | | |
|---|---|---|
| *a*. ♂ ad. sk. | Sheetee hill, Kakhyen hills, Feb. 20, 1875. | Dr. J. Anderson [C.]. |
| *b*. ♀ ad. sk. | Kokonoor, Jan. 5, 1870. | Père David [C.]. |
| *c*. ♂ ad. sk. | Ningpo, March 1872. | R. Swinhoe, Esq. [P.]. |

### 17. Pycnonotus analis.

Turdus analis, *Horsf. Tr. Linn. Soc.* xiii. p. 147; *Raffl. t. c.* p. 310.
Turdoide de gourdin, *Hombr. & Jacq. Voy. Pôle Sud, Ois.* pl. 14. fig. 1.
Pycnonotus goiavier (*nec. Gm.*), *Blyth, J. A. S. Beng.* xiv. p. 567; *id. Cat. B. Mus. As. Soc.* p. 210; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 242; *Moore, P. Z. S.* 1854, p. 278, *Gould, P. Z. S.* 1859, p. 151.
Pycnonotus yourdini, *Gray, Gen. B.* i. p. 237.
Ixus analis, *Bp. Consp.* i. p. 265.
Pycnonotus gourdini, *Bp. Consp.* i. p. 266; *Salvad. Ucc. Born.* p. 198.
Lædorusa analis, *Cab. Mus. Hein.* Th. i. p. 109.
Ixos gourdini, *Jacq. & Pucher. Voy. Pôle Sud, texte, Zool.* iii. p. 79; *Hartl. J. f. O.* 1854, p. 163.
Pycnonotus analis, *Sclater, P. Z. S.* 1863, p. 216; *Gray, Hand-l. B.* i. p. 270, no. 3943; *Salvad. Ucc. Born.* p. 197; *Sharpe, Ibis*, 1876, p. 38; *Nichols. Ibis*, 1879, p. 168; *Sharpe, Ibis*, 1879, p. 256; *id. P. Z. S.* 1879, p. 339; *Nichols. Ibis*, 1881, p. 157.
Otocompsa personata, *Hume, Str. Feathers*, 1873, p. 457.
Otocompsa analis, *Hume & Davis. Stray Feathers*, 1878, p. 308.

*Adult male.* General colour above earthy brown, with a very slight tinge of olive; wing-coverts and quills dark brown, edged with the same colour as the back, and likewise faintly tinged with olive; tail-coverts slightly more reddish brown than the back; tail-feathers dark brown, edged with olive-brown and slightly tipped with the same; crown of head rather darker than the back; lores and a ring round the eye black, separated from the crown by a broad stripe of dull white; cheeks and throat purer white; ear-coverts and hinder part of cheeks light brown, streaked with dull white below the eye and along the shafts of the ear-coverts; fore neck and chest somewhat mottled, the centres of the feathers being brown with dull whitish edges; breast and centre of body whitish, the sides of the body light brown; thighs brown, washed with yellow; vent light yellow; under tail-coverts brighter yellow; axillaries pale brown, slightly washed with yellow; under wing-coverts whitish, washed with olive-yellow, especially along the edge of the wing, and slightly mottled with brown bases to the feathers; quills brown below, fulvescent along the edges of the inner webs; "bill and legs black; iris chocolate" (*Alfred Everett*). Total length 8 inches, culmen 0·75, wing 3·6, tail 3·5, tarsus 0·9.

*Adult female.* Similar in plumage to the male. Total length 8 inches, culmen 0·8, wing 3·35, tail 3·3, tarsus 0·85.

*Young.* Light rufous-brown above, the head a little darker; the edgings to the coverts and quills rufescent; eyebrow whity brown and very indistinct; under surface of body white, inclining gradually to sulphur-yellow on the lower abdomen and vent, the under tail-

coverts sulphur-yellow ; flanks, sides of body, and a band across the breast light rufescent brown. Total length 6·8 inches, wing 3·1, tail 2·85, tarsus 0·8.

The Yellow-vented Bulbul occurs plentifully from the extreme southern part of Tenasserim, through the Malayan peninsula, to the islands of Java, Sumatra, Billiton, Lombock, Labuan, and Borneo.

| | | |
|---|---|---|
| *a*. Ad. sk. | Tenasserim. | J. C. D. Packman, Esq. [P.]. |
| *b*. ♀ ad. sk. | Mergui, Tenasserim, June 7, 1875 (*W. Davison*). | A. O. Hume, Esq. |
| *c*. Ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *d*, *e*. Ad. sk. | Penang (*Dr. Cantor*). | India Museum. |
| *f*. Juv. sk. | Penang (*Dr. Cantor*). | India Museum. |
| *g*. Ad. sk. | Acheen, Sumatra (*W. Davison*). | A. O. Hume, Esq. [P.]. |
| *h*. Ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *i*. ♂ ad. sk. | Siedjounjong, Sumatra, Sept. 1878 (*C. Bock*). | Lieut. R. G. Wardlaw Ramsay. |
| *k*. Ad. sk. | Sumatra (*Raffles*). | India Museum. |
| *l*, *m*, *n*. Ad. sk. | Java (*Dr. Horsfield*). | India Museum. (Types of *Turdus analis*, Horsf.) |
| *o*, *p*. ♂ ♀ ad. sk. | E. Java. | A. R. Wallace, Esq. [C.]. |
| *q*, *r*. ♂ ad. sk. | Java (*Lautier*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *s*, *t*. Ad. sk. | W. Java (*E. C. Buxton*). | F. Nicholson, Esq. [P.]. |
| *u*. ♀ ad. sk. | Lombock. | A. R. Wallace, Esq. [C.]. |
| *v*. ♂ ad. sk. | Sibu, Sarawak, August 1874. | Alfred Everett, Esq. [C.]. |
| *w*, *x*. Ad. sk. | Labuan. | Hugh Low, Esq. [C.]. |
| *y*, *z*. Ad. sk. | Banjermassing. | J. Motley, Esq. [C.]. |

### 18. Pycnonotus goiavier.

Petit Goiavier de Manille, *Sonn. Voy. Nouv. Guin.* p. 59, pl. 28.
Gnava Flycatcher, *Lath. Gen. Syn.* ii. pt. 1, p. 335.
Muscicapa goiavier, *Scop. Del. Faun. et Flor. Insubr.* ii. p. 96 (*ex Sonn.*).
Muscicapa psidii, *Gm. Syst. Nat.* i. p. 941 (*ex Sonn.*).
Pycnonotus goiavier, *Gray, Gen. B.* i. p. 237; *id. Hand-l. B.* i. p. 269, no. 3942.
Lædorusa goiavier, *Cab. Mus. Hein.* i. p. 109.
Ixus goiavier, *Wald. Tr. Z. S.* ix. p. 190; *Tweedd. P. Z. S.* 1877, pp. 546, 695, 827, 1878, pp. 110, 285, 342, 710, 949.

*Adult male* (Monte Alban, Luzon, Feb. 1877; A. Everett). General colour above uniform earthy brown, a little washed with ochraceous brown on the rump and upper tail-coverts; the crown much darker brown than the back, forming a cap which is bordered on each side by a broad white eyebrow drawn from the base of the forehead to the side of the occiput; lores and a ring of feathers round the eye black; cheeks, feathers below the eye, and feathers at the base of the ear-coverts white; remainder of ear-coverts very dark brown, of the same shade as the crown; sides of neck brown like the back; remainder of under surface dull white, washed with brown on the sides of the breast and flanks; a few of the breast-

feathers slightly mottled with brown centres to the feathers; vent and under tail-coverts lemon-yellow; abdomen also slightly washed with yellow; wing-coverts like the back, the greater series edged with lighter brown, slightly tinged with olive; primary-coverts and quills dark brown, edged with olive-yellow; tail-feathers brown, margined with olive; under wing-coverts white, the greater series ashy brown; quills dark brown below, ashy along the inner web; "bill, legs, and claws black; iris brown" (*A. Everett*). Total length 6·5 inches, culmen 0·65, wing 3·25, tail 3·1, tarsus 0·8. (*Mus. R. G. Wardlaw Ramsay.*)

*Adult female.* Similar in plumage to the male. Total length 6·5 inches, culmen 0·7, wing 3·2, tail 3, tarsus 0·8. (*Mus. R. G. Wardlaw Ramsay.*)

*Obs.* In the series of skins contained in Lieut. Wardlaw Ramsay's collection a considerable variation in size is exhibited, and the depth of colour in the under tail-coverts also varies somewhat, a few of the birds being more orange-yellow than others. The following are the measurements of Lieut. Ramsay's series:—

| | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|
| *a.* ♂. Manilla, Luzon (*A. B. Meyer*).. | 0·65 | 3·25 | 3·1 | 0·8 |
| *b.* ♀. Manilla, Luzon (*A. B. Meyer*).. | 0·7 | 3·2 | 3·0 | 0·8 |
| *c.* ♂. Monte Alban, Luzon (*A. Everett*). | 0·7 | 3·2 | 3·1 | 0·8 |
| *d.* ♂. Monte Alban, Luzon (*A. Everett*). | 0·7 | 3·35 | 3·25 | 0·8 |
| *e.* ♀. San Mateo, Luzon (*A. Everett*).. | 0·65 | 3·2 | 3·1 | 0·85 |
| *f.* ♀. San Mateo, Luzon (*A. Everett*).. | 0·7 | 3·2 | 3·2 | 0·8 |
| *g.* ♂. Negros (*A. Everett*) ..... | 0·7 | 3·4 | 3·25 | 0·8 |
| *h.* ♀. Negros (*A. Everett*) ..... | 0·65 | 3·3 | 3·0 | 0·85 |
| *i.* ♀. N. Bohol (*A. Everett*) ..... | 0·7 | 3·15 | 3·1 | 0·75 |
| *k.* ♀. Amparo (*A. Everett*) ..... | 0·65 | 2·8 | 2·7 | 0·75 |
| *l.* ♀. Nipah Island (*A. Everett*)..... | 0·65 | 3·0 | 2·9 | 0·75 |
| *m.* ♂. Surigao, Mindanao (*A. Everett*). | 0·65 | 3·25 | 3·1 | 0·85 |
| *n.* ♀. Surigao, Mindanao (*A. Everett*). | 0·7 | 2·95 | 3·0 | 0·8 |
| *o.* ♂. Zamboanga (*A. Everett*) ..... | 0·75 | 3·2 | 3·1 | 0·8 |
| *p.* ♀. Zamboanga (*A. Everett*) ..... | 0·7 | 3·0 | 3·0 | 0·85 |
| *q.* ♂. Basilan (*A. Everett*) ..... | 0·75 | 3·1 | 3·0 | 0·8 |

The specimen from Amparo is considerably smaller in appearance than the others, and the wing is much smaller, but the other measurements do not fall far short of some of the remaining skins.

The Philippine Yellow-vented Bulbul replaces the last species in the Philippine archipelago, where it inhabits the following islands—Luzon, Negros, Bohol, Nipah, Leyte, Mindanao.

| | | |
|---|---|---|
| *a.* Ad. sk. | Philippine Islands. | Hugh Cuming, Esq. [C.]. |
| *b.* Ad. ak. | Philippine Islands. | Alfred Everett, Esq. [C.]. |
| *c.* ♂ ad. sk. | Surigao (*A. Everett*). | Lieut. R. G. Wardlaw Ramsay. |
| *d, e.* ♂ ad. sk. | Pasananca, Mindanao (*J. Murray*). | Voyage of H.M.S. 'Challenger.' |
| *f.* ♂ ad. sk. | Zamboanga, Mindanao (*J. Murray*). | Voyage of H.M.S. 'Challenger.' |

### 19. Pycnonotus flavescens.

Pycnonotus flavescens, *Blyth, J. A. S. Beng.* xiv. p. 568; *id. Cat. B. Mus. As. Soc.* p. 244; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 244; *Gray, Hand-l. B.* i. p. 270, no. 3946; *Anders. Exp. W. Yunnan*, p. 659.

Ixus flavescens, *Bp. Consp.* i. p. 266; *Blyth & Walden, B. Burm.* p. 134; *Godwin-Austen, J. A. S. B.* xxxix. p. 106 (1870); *Hume & Davison, Str. F.* 1878, p. 306; *Hume, Str. F.* 1879, p. 98.

*Adult.* General colour above olive-brown, with somewhat of an ashy-brown shade, the crown of the head rather darker than the back and slightly crested; wing-coverts and quills light brown, with dull olive-yellow margins; tail-feathers light brown, washed with olive-yellow on the outer webs, the external feathers slightly edged with whity brown at the tips of the inner web; lores dusky, with a longitudinal spot of dull white, slightly tinged with brown; round the eye a narrow ring of dull whitish feathers; sides of face and neck, throat, fore neck, and chest dull ashy brown, washed with olive-yellow, the flanks also similarly coloured; centre of the body whity brown, washed with yellow, intensifying on the vent, the under tail-coverts being bright yellow; thighs brown, tinged with olive; under wing-coverts light fawn-brown, the edge of the wing olive-yellow; quills ashy brown below, olive along the outer web and light fawn-colour along the inner one; "bill black; legs, feet, and claws varying from very dark reddish or purplish brown to black; irides brown to red-brown" (*W. Davison*). Total length 8·8 inches, culmen 0·65, wing 3·35, tail 3·9, tarsus 0·85.

Blyth's Bulbul ranges from the Khasia hills into Arakan, Burmah, and Tenasserim.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | Khasia hills? (*Griffith*) *. | India Museum. |
| *c*. ♂ ad. sk. | Karen Nee, 4000 feet, March 13, 1874 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |

### 20. Pycnonotus luteolus.

Trichophorus virescens, *Tickell, J. A. S. Beng.* ii. p. 573; *Jerd. Madr. Journ.* x. p. 248.

Hæmatornis luteolus, *Less. Rev. Zool.* 1840, p. 354.

Pycnonotus flavirictus, *Strickl. Ann. Nat. Hist.* xiii. p. 413; *Blyth, J. A. S. Beng.* xiv. p. 367; *Gray, Gen. B.* i. p. 237; *Blyth, Cat. B. Mus. As. Soc.* p. 210.

Criniger tickelli, *Blyth, J. A. S. Beng.* xix. p. 571.

Pycnonotus luteolus, *Gray, Gen. B.* i. p. 237; *Blyth, Cat. B. Mus. As. Soc., App.* p. xxii; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 243; *Gray, Hand-l. B.* i. p. 270, no. 3944.

Ixus flavirictus, *Bp. Consp.* i. p. 266.

Ixus luteolus, *Jerd. B. Ind.* ii. p. 84; *Hume, Nests & Eggs Ind. B.* p. 283; *Ball, Str. F.* 1874, p. 410, 1876, p. 235; *Fairb. tom. cit.* p. 258; *Hume, t. c.* p. 415; *Fairb. Str. F.* 1877, p. 405; *Ball, t. c.* p. 417; *Hume, Str. F.* 1879, p. 98.

*Adult.* General colour above olive-brown, the olive colour pre-

* In the Catalogue of the India Museum (p. 244) the locality of this specimen is given as "Afghanistan"; but this is no doubt an error.

vailing on the lower back and rump; wing-coverts and quills brown, externally olive-yellow, rather brighter on the primaries; tail-feathers light brown, margined with olive; lores, eyelid, a narrow eyebrow, and a streak below the eye dull white; ear-coverts light brown, washed with olive, and narrowly streaked with whitish shaft-lines; fore part of cheeks yellow, forming a small moustachial streak; hinder part of cheeks pale ashy brown, washed with olive, the fore neck, breast, and flanks being also of this colour; throat dingy white, the chin yellow; under tail-coverts pale yellow; the centre of the body and abdomen pale yellowish white; under wing-coverts and axillaries pale yellow; quills brown below, fulvous along the edge of the inner web; "bill blackish; legs dark plumbeous; iris blood-red" (*Jerdon*). Total length 6·5 inches, culmen 0·7, wing 3·35, tail 3, tarsus 0·85.

The White-eyebrowed Bulbul inhabits low jungle and the edges of forests in Southern and Central India and Ceylon.

| | | |
|---|---|---|
| *a*. Ad. sk. | Ceylon. | E. L. Layard Esq. [C.]. |
| *b*. Ad. sk. | Madras. | R. Cole, Esq. [P.]. |
| *c*. Ad. sk. | Madras. | T. C. Jerdon, Esq. [P.]. |
| *d*. Ad. sk. | Malabar. | Lieut. R. G. Wardlaw Ramsay. |
| *e*. ♂ ad. sk. | Trevandrum, Travancore, Nov. 16, 1878. | F. W. Bourdillon, Esq. [C.]. |
| *f*. Ad. sk. | South India. | India Museum. |
| *g*. Ad. sk. | South India (*Finlayson*)*. | India Museum. |

(Horsf. & Moore, Cat. i. no. 362, spec. A.)

### 21. Pycnonotus finlaysoni.

Pycnonotus finlaysoni, *Strickl. Ann. Nat. Hist.* xiii. p. 411; *Blyth, J. A. S. Beng.* xiv. p. 568; *Gray, Gen. B.* i. p. 237; *Blyth, Cat. B. Mus. As. Soc.* p. 210; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 244; *Gray, Hand-l. B.* i. p. 270, no. 3947.

Ixus finlaysoni, *Bp. Consp.* i. p. 266; *Blyth & Wald. B. Burm.* p. 134; *Hume & Davis. Str. F.* 1878, p. 307; *Hume, Str. F.* 1879, pp. 62, 98.

*Adult.* General colour above dull olive, the mantle ashy brown, washed with olive; wing-coverts like the back, the feathers edged with olive; quills brown, externally yellowish olive, the inner secondaries entirely of the latter colour; upper tail-coverts rather more ochreous than the back; tail-feathers olive, with narrow yellow tips to all but the centre ones; crown of head and nape dull ashy, the feathers above the ear-coverts with whitish centres; forehead yellow, the feathers being obscurely edged with ashy brown; lores black; above the lores a small streak of orange; sides of face, cheeks, and throat yellow, the feathers of the latter part ashy brown, with yellow central streaks; hind portion of ear-coverts ashy brown, with whitish shaft-lines; chest ashy brown, with narrow whitish shaft-streaks; sides of body brown, washed with olive, the breast more or less ashy brown; centre of body ashy white, washed with olive-yellow; under tail-coverts clear yellow; thighs olive-yellow; under wing-coverts and axillaries pale yellow;

* Said to be from Siam, but evidently in error.

quills dusky brown below, yellow along the inner webs; "bill black or horny black; legs, feet, and claws dark to very dark plumbeous; iris brown to very dark grey-brown" (*W. Davison*). Total length 7·6 inches, culmen 0·7, wing 3, tail 3·6, tarsus 0·75.

*Adult female.* Similar to the male in plumage. Total length 7·1 inches, culmen 0·65, wing 3·25, tail 3·4, tarsus 0·8.

Finlayson's Bulbul is widely spread over the Indo-Chinese region, occurring in Cochin China, Siam, Arakan, Burmah, and Tenasserim, and ranging into the Malayan peninsula.

| | | |
|---|---|---|
| *a, b.* Ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *c.* Ad. sk. | Malacca (*Dr. Cantor*). | India Museum. |
| *d.* Ad. st. | Malacca. | Hugh Cuming, Esq. [C.]. |
| *e.* Ad. sk. | Tenasserim (*Dr. Helfer*). | India Museum. |
| *f.* Ad. sk. | Tenasserim. | J. C. D. Packman, Esq. [P.]. |
| *g.* ♀ ad. sk. | Moulmein, British Burmah (*W. Davison*). | A. O. Hume, Esq. |
| *h.* ♀ ad. sk. | Sittong, Burmah, Jan. 18, 1877 (*E. Oates*). | R. B. Sharpe, Esq. [P.]. |
| *i.* ♀ ad. sk. | Mergui, Tenasserim, Nov. 28, 1868 (*W. Davison*). | A. O. Hume, Esq. |
| *k.* Ad. sk. | Siam (*Finlayson*). | India Museum. |
| *l–m.* Ad. sk. | Saigon, Cochin China. | Mons. E. Pierre [P.]. |

## 22. Pycnonotus davisoni.

Ixus davisoni, *Hume, Str. F.* 1875, p. 301; *Armstr. Str. F.* 1876, p. 324; *Hume, Str. F.* 1876, p. 498, 1879, p. 98.

Ixus annectens, *Walden, Ann. Nat. Hist.* (4) 1875, xv. p. 401; *id. in Blyth, B. Burm.* p. 134.

*Adult male* (Rangoon, July 4, 1873; R. G. Wardlaw Ramsay: type of *Ixus annectens*, Walden). General colour above ashy brown, washed with olive, the upper tail-coverts olive-yellow; wing-coverts olive-green; quills brown, externally olive-green, the primaries externally olive-yellow; tail-feathers olive-brown, with an outer margin of olive-yellow; head dull olive-yellow, with brighter yellow on the crown and a loral spot of orange; ear-coverts olive-yellow; throat olive-yellow, the feathers with ashy bases, and having an appearance of being streaked with yellow; breast and sides of body ashy brown, slightly washed with olive, more strongly on the flanks; lower abdomen, vent, and under tail-coverts bright yellow; thighs olive, yellow behind; under wing-coverts, axillaries, and edge of wing bright yellow; quills dusky brown below, yellow along the inner web; "bill dark horny; legs leaden brown; iris pale yellow" (*R. G. W. R.*); "bill, legs, and feet dusky black: iris brownish white" (*Armstrong*). Total length in the flesh 7·7 inches, culmen 0·7, wing 3·3, tail 3·1, tarsus 0·75. (*Mus. R. G. Wardlaw Ramsay.*)

Davison's Bulbul occurs in the western Burmese countries, from Aracan to Rangoon.

| | | |
|---|---|---|
| *a, b.* Ad. sk. | Aracan (*Blyth*). | India Museum. |
| *c.* Ad. sk. | Bassein, Pegu. | W. T. Blanford, Esq. [P.]. |
| *d.* ♀ ad. sk. | Rangoon, June 6, 1876 (*E. Oates*). | R. B. Sharpe, Esq. [P.]. |

### 23. Pycnonotus xantholæmus.

Pycnonotus xantholæmus, *Jerd. Madr. Journ.* xiii. p. 122; *id. Ill. Ind. Orn.* pl. 35; *Blyth, J. A. S. Beng.* xiv. p. 568; *Gray, Gen. B.* i. p. 237; *Blyth, Cat. B. Mus. As. Soc.* p. 209; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 246; *Gray, Hand-l. B.* i. p. 269, no. 3934.
Brachypus xantholæmus, *Bp. Consp.* i. p. 264.
Ixus xantholæmus, *Jerd. B. Ind.* ii. p. 85; *Hume, Str. F.* 1879, p. 98.

*Adult.* General colour ashy grey; wing-coverts and quills light brown, margined externally with olive; upper tail-coverts dull olive; tail-feathers light brown, edged with olive, all but the centre ones tipped with yellowish white, increasing in extent towards the outermost feathers; head and sides of face yellowish olive; fore part of cheeks and throat bright yellow; remainder of under surface of body light ashy grey from the fore neck downwards, the centre of the abdomen white; thighs and under tail-coverts yellow; under wing-coverts and axillaries light yellow, or ashy edged with yellow; quills brown below, ashy along the inner webs; "bill and legs black; irides red" (*Jerdon*). Total length 7·6 inches, culmen 0·7, wing 3·2, tail 3·2, tarsus 0·8.

Jerdon's Yellow-throated Bulbul has a very limited range, and is confined to the Eastern Ghâts in Southern India.

| | | |
|---|---|---|
| *a.* Ad. sk. | Eastern Ghâts. | T. C. Jerdon, Esq. [P.]. (Type of species.) |
| *b.* Ad. sk. | Eastern Ghâts. | T. C. Jerdon, Esq. [P.]. |
| *c.* Ad. sk. | Madras. | J. Gould, Esq. |

### 24. Pycnonotus falkensteini.

Criniger falkensteini, *Reichen. J. f. O.* 1874, p. 458; *id. J. f. O.* 1877, p. 25.
Andropadus falkensteini, *Sharpe & Bouv. Bull. Soc. Zool. France,* 1876, p. 305.

*Adult.* General colour above yellowish green; wing-coverts like the back; quills dark brown, externally yellowish green like the back; tail-feathers olive-brown, externally yellowish green; lores dull grey, extending slightly onto the fore part of the cheeks; ear-coverts and sides of face dark yellowish green, brighter on the hinder part of the cheeks; throat bright yellow; rest of under surface of body ashy grey, white in the centre of the body, washed slightly with yellow on the breast, lower throat, and flanks; under tail-coverts whitish, washed with yellow at the tips, the longer coverts greenish tipped with yellow; under wing-coverts and axillaries bright yellow; quills ashy brown below, yellowish along the inner web. Total length 7·4 inches, culmen 0·65, wing 3·4, tail 3·15, tarsus 0·85.

Falkenstein's Bulbul is found only in West Africa, and is apparently confined to the forests of the Congo region.

| | | |
|---|---|---|
| *a.* Ad. sk. | Landana, Congo. | MM. Lucan and Petit [C.]. |

### 25. Pycnonotus barbatus.

Turdus barbatus, *Desf. Mém. Acad. Roy. de Sciences,* p. 500, pl. xiii.
Ixus obscurus, *Temm. Man. d'Orn.* iv. p. 608 (1840); *Degl. Orn.*

*Eur.* i. p. 475; *Schl. Rev. Crit.* p. xlii; *Degl. & Gerbe, Orn. Eur.* i. p. 396.

Hæmatornis lugubris, *Less. Rev. Zool.* 1840, p. 98.

Ixus inornatus, *Fraser, P. Z. S.* 1843, p. 27; *Allen & Thomps. Exp. Niger*, ii. p. 496; *Hartl. Orn. W.-Afr.* p. 88; *Sharpe, Ibis*, 1870, p. 474.

Pycnonotus obscurus, *Gray, Gen. B.* i. p. 227; *Blyth, Cat. B. Mus. As. Soc.* p. 209; *Finsch & Hartl. Vög. Ostafr.* p. 298; *Reichen. J. f. O.* 1875, p. 32.

Pycnonotus inornatus, *Gray, Gen. B.* i. p. 237; *Finsch & Hartl. Vög. Ostafr.* p. 299.

Ixus ashanteus, *Bp. Consp.* i. p. 266; *J. & E. Verr. Rev. et Mag. de Zool.* 1851, p. 271; *Strickl. Contr. Orn.* 1851, p. 132; *J. Verr. Rev. et Mag. de Zool.* 1855, p. 416; *Hartl. Orn. W.-Afr.* p. 88; *id. J. f. O.* 1861, p. 167; *Sharpe, Ibis*, 1869, p. 187.

Pycnonotus ashanteus, *J. W. von Müll. J. f. O.* 1855, p. 394; *Gray, Hand-l. B.* i. p. 269, no. 3927; *Finsch & Hartl. Vög. Ostafr.* p. 299.

Ixus barbatus, *Loche, Expl. Algérie, Ois.* i. p. 288; *Irby, B. Gibr.* p. 76.

Pycnonotus barbatus, *Gray, Hand-l. B.* i. p. 268, no. 3926; *Sharpe, P. Z. S.* 1871, p. 131, pl. vii. fig. 3; *id. Cat. Afr. B.* p. 23; *Dresser, B. Eur.* pt. xxxix.

*Adult male* (Kef Laks, April 27, 1857; O. Salvin). General colour above earthy brown, the wing-coverts like the back; quills darker brown, narrowly edged with lighter brown, the inner secondaries like the back; tail dark brown, faintly tipped with ashy brown on the outer feathers; crown of head rather darker brown than the back; cheeks, ear-coverts, and sides of face dark brown; the lores, region round the eye, and base of lower mandible blackish; throat dark brown, inclining to blackish at the base of the chin; fore neck and rest of under surface light ashy brown, somewhat darker brown on the flanks and thighs; abdomen and under tail-coverts white, with a faint tinge of yellow on the latter; under wing-coverts and axillaries light ashy brown like the breast; quills dark brown below, ashy along the edge of the inner web; bill and feet black; iris dark brown. Total length 8 inches, culmen 0·8, wing 4·05, tail 3·8, tarsus 0·9.

*Adult female.* Similar in plumage to the male. Total length 7·5 inches, culmen 0·75, wing 3·8, tail 3·5, tarsus 0·85.

*Nestling.* Brown like the adult, but paler; below ashy whitish; the head scarcely darker brown than the back.

*Obs.* Since I wrote my remarks on the African Bulbuls (P. Z. S. 1871, p. 131) I have examined a good many more specimens, and I now think it would be a great mistake to continue to keep *P. gabonensis* with the yellow-vented Bulbuls. It is, in fact, nothing but a race of *P. barbatus*, and some of the specimens from the Niger and Abeokuta approach it in the dark coloration of the head and throat. The yellow tinge on the under tail-coverts is often seen on *P. barbatus*, though not so pronounced as in Gaboon specimens.

The White-vented Bulbul is found in North-western Africa, in

Algeria and Morocco. In West Africa it is again very plentiful from the Gambia to the Niger.

| | | |
|---|---|---|
| *a, b.* ♂ ♀ ad. sk. | Kef Laks, Prov. Constantine, Algeria, April 27, 1857 (*O. Salvin*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *c.* Ad. sk. | Tangiers. | M. Favier [C.]. |
| *d–e.* Ad. sk. | River Gambia. | R. B. Sharpe, Esq. |
| *f.* Ad. st. | River Gambia. | |
| *g.* Ad. sk. | Sierra Leone. | Capt. Sabine [P.]. |
| *h, i.* Ad. sk. | Gold Coast. | L. Fraser, Esq. [C.]. |
| *k.* Ad. sk. | Ashantee. | J. Gould, Esq. |
| *l, m.* Ad. sk. | Fantee. | R. B. Sharpe, Esq. |
| *n.* Ad. sk. | Fantee (*Governor Ussher*). | R. B. Sharpe, Esq. |
| *o.* Ad. sk. | Cape Coast (*L. Fraser*). | Eyton Coll. (Type of *Ixus ornatus*, Fraser.) |
| *p, q.* Ad. sk. | Accra (*Capt. Haynes*). | R. B. Sharpe, Esq. |
| *r.* Ad. sk. | River Volta (*Governor Ussher*). | R. B. Sharpe, Esq. |
| *s–u.* Ad., *v.* Pull. sk. | Abeokuta (*H. Robin*). | F. Nicholson, Esq. [P.]. |
| *w.* Ad. sk. | River Niger. | Dr. Baikie [C.]. |
| *x.* Ad. st. | Africa. | J. Gould, Esq. |

### Subsp. *a.* **Pycnonotus gabonensis.**

Pycnonotus gabonensis, *Sharpe, P. Z. S.* 1871, p. 131, pl. vii. fig. 1; *id. Cat. Afr. B.* p. 23; *Reichen. J. f. O.* 1875, p. 33; *Dresser, B. Eur. text to* pl. xxxix.

*Adult.* Similar to *P. barbatus*, but darker brown above; on the lower surface the flanks are browner, and the dark-brown colour of the throat extends over the whole fore neck and chest. Total length 7 inches, culmen 0·75, wing 3·75, tail 3·45, tarsus 0·85.

The Gaboon White-vented Bulbul replaces the former species in the Cameroons and Gaboon, and is, in fact, only a darker race of *P. barbatus*.

| | | |
|---|---|---|
| *a.* Ad. sk. | Gaboon (*R. B. N. Walker*). | R. B. Sharpe, Esq. (Type of species.) |
| *b.* Ad. sk. | River Danger, Gaboon. | Henry Ansell, Esq. [P.]. |
| *c.* Imm. sk. | Cameroons. | R. B. Sharpe, Esq. |

### 26. **Pycnonotus arsinoë.**

Ixus arsinoë, *Hempr. & Ehr. Symb. Phys.* sig. a a; *Rüpp. Neue Wirb., Vög.* p. 83; *id. Syst. Uebers.* p. 60; *Bp. Consp.* i. p. 266; *Antin. Cat. descrr. Ucc.* p. 43.

Turdus arsinoë, *Licht. Verz. Doubl.* p. 39.

Pycnonotus arsinoë, *Gray, Gen. B.* i. p. 237; *Cab. Mus. Hein.* Th. i. p. 107; *Horsf. & Moore, Cat. B. Mus. E. I. Co.* i. p. 107; *Gray, Hand-l. B.* i. p. 268, no. 3925; *Heugl. Orn. N.O.-Afr.* p. 396; *Blanf. Geol. & Zool. Abyss.* p. 369; *Finsch, Tr. Z. S.* vii. p. 245; *id. & Hartl. Vög. Ostafr.* p. 296; *Sharpe, Cat. Afr. B.* p. 23; *id. P. Z. S.* 1871, p. 131; *Shelley, B. Egypt*, p. 67.

Pycnonotus barbatus, *Strickl. P. Z. S.* 1850, p. 217 (*nec Desf.*).

Ixos obscurus, *A. C. Smith, Attr. of the Nile*, ii. p. 222.

*Adult male.* General colour above earthy brown, the wing-coverts

like the back; quills dark brown, edged externally with lighter brown; tail dark brown, the outer feathers with paler tips; head black, forming a distinct cap; lores, ear-coverts, and sides of face also blackish, as well as the throat, the latter mingling with brown on the fore neck, which, with the chest, is brown, as well as the sides of the neck; remainder of under surface white, the flanks and thighs somewhat washed with brown; under tail-coverts pure white; under wing-coverts and axillaries pale brown, the edge of the wing and carpal band white; quills brown below, pale reddish brown along the edge of the inner web; "bill black; feet blackish; iris dusky" (*Heuglin*); "beak brownish black; legs and irides dark brown" (*Shelley*). Total length 7 inches, culmen 0·65, wing 3·3, tail 3·05, tarsus 0·85.

*Adult female.* Similar in plumage to the male. Total length 7 inches, culmen 0·7, wing 3·55, tail 3·3, tarsus 0·8.

Hemprich's Bulbul is an inhabitant of North-eastern Africa and Southern Arabia, ranging from Central Egypt through Nubia and the lowlands of Abyssinia, Kordofan, to the Lower White and Blue Niles, occurring also on the Adel and Somali coasts.

| | | |
|---|---|---|
| *a*. Ad. sk. | Wadi Halfa, 2nd Cataract of the Nile. | Dr. A. Leith Adams [P.]. |
| *b*. Ad. sk. | Nubia. | R. B. Sharpe, Esq. |
| *c*. ♀ ad. sk. | Koomaylee, Abyssinia, Feb. 13, 1868. | W. T. Blanford, Esq. [C.]. |
| *d*. ♂ ad. sk. | Ailat, Samhar, June 25, 1868. | W. T. Blanford, Esq. [C.]. |
| *e*. Ad. sk. | Ain, Bogos Land (*W. Jesse*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *f*. ♂ ad. sk. | Ankober, Abyssinia, Dec. 1841. | Sir W. C. Harris [P.]. |
| *g*, *h*. Ad. sk. | Khartoum, Dec. 1861. | Consul Petherick [C.]. |
| *i*. Ad. sk. | Kordofan. | Consul Petherick [C.]. |
| *k*. Ad. st. | Abyssinia. | Massena Collection. |

## 27. Pycnonotus sinensis.

Le Gobe-mouches verdâtre de la Chine, *Sonn. Voy. Ind. Orient.* ii. p. 197.

Wreathed Flycatcher, *Lath. Gen. Syn.* ii. part 1, p. 336.

Muscicapa sinensis, *Gm. Syst. Nat.* i. p. 942.

Turdus occipitalis, *Less. Traité*, p. 410 (*descr. nullâ*); *Eyd. & Gervais, Mag. de Zool.* 1836, pl. 66; *iid. Voy. Favorite, Zool.* p. 36, pl. 14.

Pycnonotus sinensis, *Blyth, J. A. S. Beng.* xiv. p. 569; *id. Cat. B. Mus. As. Soc.* p. 210; *Gray, Hand-l. B.* i. p. 270, no. 3948.

Pycnonotus occipitalis, *Gray, Gen. B.* i. p. 237; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 246.

Ixus sinensis, *Bp. Consp.* i. p. 266; *Cass. in Perry's Exped. Japan*, ii. p. 241; *Swinh. Ibis*, 1863, p. 289; *id. P. Z. S.* 1863, p. 278; *id. P. Z. S.* 1871, p. 369; *Wald. Tr. Z. S.* ix. p. 191; *David & Oustalet, Ois. Chine*, p. 140.

*Adult male.* General colour above dark ashy, with a wash of olive-yellow, the scapulars, as well as the lesser and median wing-

coverts, like the back; bastard-wing, primary and greater coverts, as well as the quills, dark brown, externally edged with olive-yellow; tail-feathers brown, margined with olive-yellow; crown of head black, and slightly crested; occiput conspicuously white, extending on the sides of the head to behind the eye; this white occipital patch followed by a blackish nape-band, which separates it from the mantle-spot; in front of the eye ashy whitish; round the eye a black ring, the hinder edge white, where it adjoins the white occipital patch; ear-coverts dark brown, the hinder portion paler brown, forming a patch; cheeks blackish, throat white; fore neck and chest ashy brown, forming a conspicuous breast-band, slightly washed with olive-yellow; sides of body also light brown, washed with yellow; centre of body, abdomen, vent, and under tail-coverts white, slightly washed with yellow, some of the feathers being edged with this colour; thighs ashy brown, tinged with yellow; under wing-coverts and axillaries white, faintly washed with yellow; quills dusky brown below, ashy whitish along the edge of the inner web. Total length 7 inches, culmen 0·7, wing 3·35, tail 3·1, tarsus 0·8.

*Adult female.* Similar in plumage to the male. Total length 7·5 inches, culmen 0·75, wing 3·55, tail 3·3, tarsus 0·85.

The White-naped Bulbul occurs only in South China and Formosa. It is abundantly distributed over Southern China as far as the northern boundary of the basin of the Yangtze river.

| | | | |
|---|---|---|---|
| *a.* Ad. sk. | Hong Kong, China. | | India Museum. |
| *b, c.* ♂, *d.* ♀ ad sk. | Amoy, China, May (*R. Swinhoe*). | 1861 | F. Godman and O. Salvin, Esqrs. [P.]. |
| *e.* Ad. sk. | N. Formosa, March (*R. Swinhoe*). | 1862 | F. Godman and O. Salvin, Esqrs. [P.]. |
| *f, g.* Ad. sk. | N. Formosa. | | H. C. Hobson, Esq. [P.]. |

### 28. Pycnonotus hainanus.

Ixus hainanus, *Swinh. Ibis*, 1870, p. 253; *id. P. Z. S.* 1871, p. 369; *David & Oustalet, Ois. Chine*, p. 141.

*Adult.* General colour above dark ashy grey, washed with olive-yellow; least wing-coverts like the back; the greater coverts, along with the bastard-wing, primary-coverts, and quills dark brown, externally edged with olive-yellow; tail-feathers dark brown, margined with olive-yellow; crown of head deep black, a little browner on the nape and behind the ear-coverts; ear-coverts brown, the hinder portion whitish, forming a small patch; lores greyish white; cheeks and region of the eye blackish, the hinder portion brown; throat white; fore neck, breast, flanks, and thighs ashy brown, washed with olive-yellow; centre of body, abdomen, and under tail-coverts dull white, washed with yellow; under wing-coverts and axillaries white, with yellow edgings; quills dusky brown below, ashy whitish along the edge of the inner web; "irides deep brown" (*Swinhoe*). Total length 6·8 inches, culmen 0·7, wing 3·45, tail 3, tarsus 0·85.

Swinhoe's Bulbul was first described from the Chinese islands of Hainan and Naochow. The specimen from Siam in the Museum appears to be perfectly identical; and the species will therefore probably be found to range through South China into Siam and Cambodia.

| | | |
|---|---|---|
| *a*. Ad. sk. | Hainan, Feb. 1868. | R. Swinhoe, Esq. [C.]. |
| *b*. Ad. sk. | Naochow Island, Feb. 1868. | R. Swinhoe, Esq. [C.]. |
| *c*. Ad. sk. | Naochow Island (*R. Swinhoe*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *d*. Ad. sk. | Siam (*Finlayson*). | India Museum. |

(*Cf.* Horsf. & Moore, Cat. i. p. 246.)

### 29. Pycnonotus blanfordi.

Pycnonotus blanfordi, *Jerdon, Ibis*, 1862, p. 20; *Anders. Exp. Yunnan*, p. 659.
Ixus familiaris, *Blyth, J. A. S. B.* xxxi. p. 343.
Microscelis blanfordi, *Gray, Hand-l. B.* i. p. 268, no. 3920.
Ixus blanfordi, *Blyth & Walden, B. Burm.* p. 134; *Oates, Str. F.* 1877, p. 156; *Hume & Davis. Str. F.* 1878, p. 308; *Hume, Str. F.* 1879, p. 98.
Microtarsus blanfordi, *Hume, Str. F.* 1875, p. 125.

*Adult* (type of species). General colour above light brown, washed with olive; wing-coverts like the back, slightly edged with olive; quills brown, margined with olive, the primaries externally whity brown; tail-feathers light brown, margined with olive, slightly paler at the tips of the feathers; lores dull white; ear-coverts brown, with distinct silvery-white shaft-lines; cheeks whity brown, with white shaft-lines; throat whitish; remainder of under surface of body ashy brown, slightly washed with olive, much paler in the centre of the body; thighs fulvous brown; under wing-coverts and axillaries pale fulvous brown, slightly washed with olive, especially on the edge of the wing; quills dusky brown below, pale fawn-buff along the edge of the inner web; "bill light brown, paler at the base of the lower mandible and gape; inside of mouth flesh-colour; legs clear plumbeous; claws horny; irides pale yellowish brown; eyelids greenish plumbeous" (*E. Oates*). Total length 7·5 inches, culmen 0·7, wing 3·3, tail 3·45, tarsus 0·8.

Blanford's Bulbul is only known from the Indo-Chinese subregion. It is found in Burmah and Upper Pegu, ranging into the hills of Cochin China (*Paris Museum*).

| | | |
|---|---|---|
| *a*. Ad. sk. | Upper Burmah. | T. C. Jerdon, Esq. [P.]. (Type of species.) |
| *b*. Ad. sk. | Upper Pegu. | E. Blyth, Esq. [P.]. (Type of *Ixus familiaris*.) |
| *c*. Ad. sk. | Pegu. | W. T. Blanford, Esq. [P.]. |
| *d*. ♀ ad. sk. | Lower Pegu, Dec. 29, 1876 (*E. Oates*). | R. B. Sharpe, Esq. [P.]. |
| *e*. Ad. sk. | Upper Burmah, Jan. 16, 1868. | Dr. J. Anderson [C.]. |
| *f*. Ad. sk. | Upper Burmah, Sept. 20, 1868. | Dr. J. Anderson [C.]. |
| *g*. Ad. sk. | Tonghoo (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |

### 30. Pycnonotus plumosus.

Pycnonotus plumosus, *Blyth, J. A. S. Beng.* xiv. p. 567; *id. Cat. B. Mus. As. Soc.* p. 210; *Salvad. Ucc. Born.* p. 198; *Sharpe, Ibis*, 1876, p. 38; *id. P. Z. S.* 1879, p. 339.
Pycnonotus inornatus, *Bp. Consp.* i. p. 263; *Gray, Hand-l. B.* i. p. 270, no. 3950.
Ixus plumosus, *Bp. t. c.* p. 266; *Hume & Davis. Str. F.* 1878, p. 309; *Hume, Str. F.* 1879, pp. 62, 98.
Pycnonotus simplex, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 244.
Ixus inornatus, *Blyth, Ibis*, 1870, p. 171.

Head of *Pycnonotus plumosus*.

*Adult male.* General colour above dull brown, strongly shaded with olive, the head rather darker than the back; lower back, rump, and upper tail-coverts slightly clearer brown; wing-coverts darker brown than the back and more strongly shaded with olive-yellow; quills brown, externally olive-yellow; tail-feathers light brown, shaded with olive and margined with olive-yellow; lores lighter brown; ear-coverts brown, streaked with dull whitish shaft-lines; cheeks and under surface of body earthy brown, darker on the flanks, which are shaded with olive, the chest somewhat overshaded with ashy; the throat and centre of the abdomen paler and more whity brown; thighs brown, shaded with olive; under tail-coverts olivaceous ochre; under wing-coverts brown, washed with yellowish olive, brighter on the edge of the wing; axillaries whity brown, slightly washed with olive; quills brown below, dull whitish along the inner web; "bill black; feet dusky; iris red" (*Wallace, MS.*). Total length 6·8 inches, culmen 0·7, wing 3·2, tail 2·8, tarsus 0·8.

*Adult female.* Similar to the male in plumage (*A. O. Hume*).

Mr. Hume also gives the measurements of a series as follows:—Length 7·62–8 inches, tail 3–3·35, wing 3–3·35, culmen 0·7–0·8, tarsus 0·6–0·8.

The Large Olive Bulbul is an inhabitant of Sumatra and Borneo, ranging through the Malayan peninsula to the southern part of the Tenasserim province.

| | | |
|---|---|---|
| *a, b.* ♂ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *c, d.* Ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *e.* Ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *f.* Ad. sk. | Sumatra (*Raffles*). | India Museum. (*P. simplex*, H. & M. *l. c.* sp. A.) |

| | | |
|---|---|---|
| *g*. ♀ ad. sk. | Paku, Sarawak, Nov. 1878. | Henry Everett, Esq. [C.]. |
| *h*. ♂ ad. sk. | Jambusan, N.W. Borneo. | Alfred Everett, Esq. [C.]. |
| *i*. Ad. sk. | Labuan. | Hugh Low, Esq. [C.]. |
| *k*. Juv. sk. | Labuan (*H. Low*). | R. B. Sharpe, Esq. [P.]. |

### 31. Pycnonotus cinereifrons.

Brachypus cinereifrons, *Tweed. P. Z. S.* 1878, p. 617.

*Adult male* (Puerto Princesa, Palawan, Dec. 14, 1877; A. Everett: type of species). General colour above dull olive-brown, the head a little darker than the back, the rump and upper tail-coverts rather more ochraceous brown; wing-coverts olive-greenish; quills dusky brown, externally edged with olive-green, the secondaries browner and more like the back; quills brown, margined with olive-greenish and narrowly edged with whity brown at the tip; frontal plumes ashy, somewhat pointed, producing a scaly appearance, which extends a little way over the eye; ear-coverts dusky brown, with narrow whitish shaft-lines; throat dull brownish white; fore neck and chest light ashy brown, as also the sides of the body, faintly washed with olive; abdomen dull white, slightly washed with olive; thighs and under tail-coverts saffron-yellow, with dusky brown centres; under wing-coverts, axillaries, and edge of wing saffron; quills dusky brown below, saffron-coloured along the inner web; "bill blackish brown; legs and feet purple-brown; iris deep red burnt-sienna" (*A. Everett*). Total length 7·5 inches, culmen 0·8, wing 3·3, tail 3·2, tarsus 0·85. (*Mus. R. G. Wardlaw Ramsay.*)

*Adult female.* Does not differ in colour from the male. Total length 7·2 inches, culmen 0·8, wing 3·55, tail 3·45, tarsus 0·75. (*Mus. R. G. Wardlaw Ramsay.*)

The Ashy-fronted Bulbul is only known from the island of Palawan, Philippine archipelago.

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|---|---|---|
| *a*. ♂ ad. sk. | Puerto Princesa, Palawan, Dec. 1877 (*A. Everett*). | Lieut. R. G. Wardlaw Ramsay. |
| *b*. ♀ ad. sk. | Puerto Princesa, Palawan, Jan. 1878 (*A. Everett*). | Lieut. R. G. Wardlaw Ramsay. |

### 32. Pycnonotus simplex. (Plate IX.)

Pycnonotus simplex, *Less. Rev. Zool.* 1839, p. 167; *Gray, Hand-l. B.* i. p. 270, no. 3951.

Pycnonotus brunneus, *Blyth, J. A. S. Beng.* xiv. p. 568; *id. Cat. B. Mus. As. Soc.* p. 210; *Gray, Hand-l. B.* i. p. 269, no. 3965.

Pycnonotus modestus, *Blyth, J. A. S. Beng.* xiv. p. 568, note (*ex A. Hay, MS.*).

Ixos brunneus, *Bp. Consp.* i. p. 266.

Microtarsus olivaceus, *Moore, in Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 249.

Microscelis olivaceus, *Gray, Hand-l. B.* i. p. 268, no. 3921.

Ixus brunneus, *Hume & Davis. Str. F.* 1878, p. 312; *Hume, Str. F.* 1879, pp. 62, 98.

*Adult male.* General colour above dull brown, with a faint wash of olive, inclining to umber-brown on the lower back and upper tail-coverts; wing-coverts and quills brown, with olive margins to the feathers; tail-feathers dark brown, with an almost obsolete edging of olive near the base of the outer webs; lores, sides of face, and ear-coverts like the head; cheeks light ashy brown, washed with olive, and scarcely darker than the throat, which is dusky yellowish white with a tinge of olive; fore neck, breast, and sides of body brown, washed with olive, the fore neck slightly more ashy brown; centre of body, abdomen, and under tail-coverts yellowish white, some of the longer ones of the latter coverts having light-brown centres; under wing-coverts and axillaries yellowish white, the edge of the wing ochraceous yellow; quills dark brown, brownish white along the edge of the inner web; "bill dark; feet pale; iris milk-white" (*Wallace, MS.*). Total length 6·7 inches, culmen 0·65, wing 3·1, tail 3, tarsus 0·65.

*Adult female.* Similar to the male in colour, but rather smaller. Total length 6·5 inches, culmen 0·6, wing 2·9, tail 2·65, tarsus 0·65.

*Obs.* The colour of the iris seems to vary considerably in this species, from light reddish yellow (*Wallace*) to orange-red, pale red, or whity pink (*Hume*), or crimson and Indian red (*Ramsay*). The specimen figured in the Plate is one shot by Mr. Wallace, and is marked as having a "milk-white" iris.

Mr. Hume gives a series of measurements, of which the following are the limits:—Total length 6·8–7·5 inches, culmen 0·63–0·73, wing 2·8–3·4, tail 2·78–3·27, tarsus 0·65–0·75. The females are mostly smaller, but often equal the dimensions of the male.

Great variation exists in the shade of colour in this species, some specimens being much lighter and others darker; and this seems to me to be due not only to the more or less perfect plumage in which the bird was in when it was killed, but also to the fading of the skin after death, somewhat in the same way as the skins of the *Hypsipetes* lose their colour when preserved. On the differences between the present species and *P. plumosus*, with which it has been sometimes united, Mr. Hume's remarks (Str. F. 1878, pp. 309–312) are conclusive.

Moore's Olive Bulbul inhabits Java, Sumatra, Borneo, and extends up the Malayan peninsula as high as Tenasserim, where it is sparingly distributed in well-wooded tracks throughout the province south of Tavoy.

| | | |
|---|---|---|
| *a, b.* Ad. sk. | East Java. | A. R. Wallace, Esq. [C.]. |
| *c, d.* Ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *e.* ♂ ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *f.* Ad. sk. | Sumatra (*A. R. Wallace*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *g, h.* ♂ ad. et juv. sk. | Sarawak. | A. R. Wallace, Esq. [C.]. |
| *i.* ♂ ad. sk. | Paku, Sarawak. | Henry Everett, Esq. [C.]. |
| *k.* ♂ ad. sk. | Bintulu, N.W. Borneo. | Alfred Everett, Esq. [C.]. |
| *l.* ♂ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *m.* Ad. sk. | Malacca (*Griffith*). | India Museum. (Type of *Microtarsus olivaceus.*) |

### 33. Pycnonotus pusillus. (Plate X.)

Pycnonotus simplex (*nec Less.*), *Bp. Consp.* i. p. 263 (*ex Kuhl, MS. in Mus. Lugd.*).
Pycnonotus, sp., *Gray, Hand-l. B.* i. p. 270, no. 3953.
Pycnonotus pusillus, *Salvad. Ucc. Born.* p. 200; *Sharpe, Ibis*, 1876, p. 38; *Tweedd. Ibis*, 1877, p. 307.
Ixus pusillus, *Hume, Str. F.* 1878, p. 312; *id. Str. F.* 1879, pp. 62, 98.

*Adult male.* General colour above olive-brown, inclining slightly more to rufescent brown on the lower back and rump; head a little more dusky olive-brown than the back; least wing-coverts olive-brown; median and greater coverts brown, with a faint olive tinge on the outer webs; primaries dark brown, margined with pale olive externally; the secondaries lighter brown, with olive margins; upper tail-coverts umber-brown, slightly rufescent; tail-feathers umber-brown, with a slight margin of olive, the tips of the outer feathers narrowly whity brown; lores, ear-coverts, and sides of face ashy brown; throat dull white, with a slight pinkish gloss; fore neck, breast, and sides of body olive-brown, the former parts rather ashy, the flanks a little browner; centre of the abdomen, vent, and under tail-coverts yellow, the latter a little mottled in appearance, having the outer webs light brown tipped with dull yellow; under wing-coverts olive-brown, rather more yellowish olive near the edge of the wing; axillaries dull yellow; quills brown below, yellowish along the inner web; "bill black; nostrils, gape, and eyelids orange-buff; feet dusky olive; iris red" (*Wallace*); "gape and base of lower mandible, shelf above nostrils, and ophthalmic ring vivid orange-yellow" (*Davison*); "eyelid chrome-yellow" (*Everett*). Total length 6·5 inches, culmen 0·55, wing 2·85, tail 2·9, tarsus 0·6.

*Young.* Much more dingy and browner than the adult, the sides of face brown; the throat and breast far less ashy than in the old birds.

The Small Olive Bulbul occurs in Borneo, Sumatra, and the Malayan peninsula, ranging into Southern Tenasserim, where it occurs only in the neighbourhood of the Pakchan, and is there very rare.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Sarawak. | A. R. Wallace, Esq. [C.]. |
| *b, c.* Juv. sk. | Sarawak. | Henry Everett, Esq. [C.]. |
| *d.* ♂ ad. sk. | Paku, Sarawak. | Henry Everett, Esq. [C.]. |
| *e.* ♂ ad. sk. | Puak, Upper Sarawak. | Alfred Everett, Esq. [C.]. |
| *f.* Ad. sk. | Lumbidan, N.W. Borneo. | Hugh Low, Esq. [C.]. |
| *g.* Imm. sk. | Sumatra. | Purchased. |

### 34. Pycnonotus leucogrammicus*.

Pycnonotus leucogrammicus, *S. Müll. Tidschr. Nederl. Indië*, 1835, p. 362; *Gray, Gen. B.* i. p. 237; *id. Hand-l. B.* i. p. 269, no. 3936.
Ixus leucogrammicus, *Bp. Consp.* i. p. 264.

* Type examined in the Leiden Museum.

*Adult* (Sumatra; Bock). General colour above dark olive-green, the feathers streaked with white down the shafts, less distinctly on the lower back and rump; wing-coverts like the back, the lesser and median series with white shaft-streaks; greater wing-coverts olive-greenish, not streaked with white; quills deep brown, externally olive-green, a little brighter than the back; tail-feathers dark brown, edged with obscure olive-green, the outer ones with indications of a whity brown spot at the tip; head dusky brown, darker than the back, the feathers streaked with whitish shaft-lines, a little more distinct on the forehead and over the eye; lores dull white; ear-coverts dusky brown, thickly streaked with white; cheeks white, the feathers broadly margined with olive-green; throat white, washed with yellow; fore neck and breast dark olive-green, with central streaks of white; the breast and flanks white, with green edgings to the feathers; lower abdomen white, faintly washed with yellow; under tail-coverts pale yellow, the feathers margined with olive-brown; thighs yellowish white, mottled with brown bases to the feathers; under wing-coverts white or pale yellow; quills deep brown below, white or yellowish white along the inner web; "iris orange-yellow" (*C. Bock*). Total length 6·5 inches, culmen 0·6, wing 3·3, tail 3·1, tarsus 0·65. (*Mus. R. G. Wardlaw Ramsay.*)

The White-streaked Bulbul is only known from the mountains of Sumatra, to which it is confined.

*a*. Ad. sk. Sumatra (*C. Bock*). Lieut. R. G. Wardlaw Ramsay.

### 35. Pycnonotus tygus*.

Brachypus tygus, *Bp. Consp.* i. p. 262 (*ex Müller, MS.*).
Pycnonotus tygus, *Gray, Hand-l. B.* i. p. 271, no. 3966.

*Adult*. General colour above dusky brown, with a wash of dark olive-green; rump ochraceous olive; upper tail-coverts dull olive; tail-feathers brown, externally washed with olive; wing-coverts dark brown, very narrowly edged with yellowish olive; quills dark brown, externally edged with rather brighter olive-yellow, duller on the inner secondaries; head brown, overshaded with yellowish olive; above the eye a conspicuous bare space; above the ear-coverts a shade of ochraceous olive; ear-coverts yellow, forming a patch; lores, feathers round the eye, cheeks, and throat white; remainder of under surface of body streaked, the feathers being olive-brown with white longitudinal centres, the lower flanks uniform olive-brown, as also the thighs; under tail-coverts ochraceous olive; under wing-coverts and axillaries white, the edge of the wing olive-yellow; quills dusky brown below, white along the edge of the inner web. Total length 5·8 inches, culmen 0·5, wing 2·8, tail 2·55, tarsus 0·6.

The Small White-streaked Bulbul is only known from the island of Sumatra.

*a*. Ad. sk. Sumatra. Purchased.

* Type examined in the Leiden Museum.

## 22. OTOCOMPSA.

Otocompsa, *Cabanis, Mus. Hein.* Th. i. p. 109 (1850).... Type. O. jocosa.

Head of *Otocompsa leucogenys.*

*Range.* Indian peninsula and Himalaya mountains, extending eastwards into the Burmese and Tenasserim hills and those of Cochin China, recurring again on Kina-Balu mountain in Borneo.

*Key to the Species.*

*a.* Under tail-coverts red, with a red ear-tuft.
  *a'.* Tail-feathers tipped with white ..... *jocosa*, p. 157.
  *b'.* Tail-feathers uniform, and not tipped with white ..... *emeria*, p. 159.
*b.* Under tail-coverts yellow.
  *c'.* Ear-coverts white; head brown, streaked with whity brown; throat blackish brown; under surface of body pale ashy, white on the abdomen ..... *leucogenys*, p. 160.
  *d'.* Ear-coverts black, like the head and throat; under surface yellow.
    *a''.* Larger: throat black ..... *flaviventris*, p. 161.
    *b''.* Smaller: throat yellow ..... *montis*, p. 162.

### 1. Otocompsa jocosa.

Le petit Merle hupé de la Chine, *Briss. Orn.* ii. p. 255, pl. xxi. fig. 2.

Lanius jocosus, *Linn. Syst. Nat.* i. p. 138 (*ex Briss.*).

Ixus monticolus, *McClell. P. Z. S.* 1839, p. 160.

Ixos pyrrhotis, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, pl. 204. figs. 1, 2, pl. 205. fig. 1 (no. 209); *id. in Gray's Zool. Misc.* p. 84.

Ixos jocosus, *Pears. J. A. S. Beng.* x. p. 640; *Bp. Consp.* i. p. 265; *Swinh. P. Z. S.* 1871, p. 370.

Pycnonotus jocosus, *Blyth, J. A. S. Beng.* xiv. p. 566, xv. p. 286; *id. Cat. B. Mus. As. Soc.* p. 208; *Gray, Gen. B.* i. p. 237; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 238; *Gray, Hand-l. B.* i. p. 271, no. 3960.

Hæmatornis jocosus, *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 89.

Otocompsa jocosa, *Cab. Mus. Hein.* Th. i. p. 109; *Jerd. B. Ind.* ii. p. 92; *Godw.-Aust. J. A. S. Beng.* 1870, p. 106.

Ixus erythrotis, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 421.

Otocompsa monticola, *Blyth, Ibis*, 1867, p. 8; *Hume, Str. F.* 1873, p. 309; *Blyth & Wald. B. Burm.* p. 135; *Hume, Str. F.* 1879, p. 98.

Otocompsa emeria, *Hume, Str. F.* 1873, p. 309, 1874, pp. 225, 447; *id. Nests & Eggs Ind. B.* p. 287; *Ball, Str. F.* 1874, p. 410; *Hume, Str. F.* 1875, p. 126; *Armstr. Str. F.* 1876, p. 325; *Hume, Str. F.* 1877, p. 35; *Oates, t. c.* p. 157; *Hume & Davison, Str. F.* 1878, p. 515; *Hume, Str. F.* 1879, pp. 63, 98; *Scully, t. c.* p. 296; *Anders. Exped. Yun-nan*, p. 657.

Pycnonotus pyrrhotis, *Gray, Hand-l. B.* i. p. 271, no. 3961.

Pycnonotus erythrotis, *Gray, t. c.* p. 271, no. 3963.

*Adult.* General colour above brown, from the nape to the upper tail-coverts; wings and tail sepia-brown, edged with the lighter brown of the back; the four centre feathers of the latter uniform, but the three outermost on each side having a distinct white spot at the tip of the inner web, extending onto the outer web of the external rectrix; head blackish, with a very long crest, the brown of the nape also slightly shaded with black; lores and feathers round the eye black, with a small tuft of crimson feathers below the hinder part of the latter; ear-coverts white, as also the cheeks, which are separated from the ear-coverts by a narrow black line; throat and under surface of body generally dull white, the sides of the body earthy brown, with a distinct half-collar of blackish brown on each side of the upper breast; under tail-coverts crimson; under wing-coverts dull white, with a wash of brown near the edge; "bill black; feet grey; iris brown" (*David*). Total length 6·5 inches, culmen 0·7, wing 3·15, tail 3·3, tarsus 0·75.

*Obs.* As is well known, there is great difficulty in separating the Nepal bird (*O. pyrrhotis*, Hodgs.) from *O. monticola*, the difference consisting principally in the greater length of the ear-tuft in the Nepalese bird. This is a character which seems to vary; and its development appears to increase with the age of the bird, as Mr. Hume found that young birds did not have it at all. The number of white-tipped tail-feathers also varies; and although I was at first inclined to keep the two birds distinct, I feel sure that they will be found to run into one another. The Assam specimens are thoroughly intermediate, having the long crest of the Nepal bird, but the short dark-crimson ear-tuft of the Burmese and Malaccan race. McClelland described his *Ixus monticolus* from Assam; and Mr. Hume seems to recognize it as a distinct species, "having a scarlet ring round the eye, but no red tuft beneath this organ." The specimens in the Museum do not show this peculiarity.

The Red-whiskered Bulbul occurs in jungly and well-wooded districts in Northern India, from the Central Himalayas to Assam, where a modified race is met with, which extends throughout the Burmese countries and Southern China, down the Malayan peninsula, and also to the Andaman Islands.

| | | |
|---|---|---|
| *a, b.* Ad. sk. | Oude. | Capt. Stackhouse Pinwill [P.]. |
| *c.* Ad. sk. | Darjiling. | India Museum. |
| *d–g.* Ad. sk. | Nepal. | B.H.Hodgson, Esq. [P.]. |
| *h.* Ad. sk. | Nazeerah, Upper Assam (*Dr. Reid*). | R. B. Sharpe, Esq. [P.]. |
| *i.* Ad. sk. | Assam (*McClelland*). | India Museum. (Type of *Ixus monticolus.*) |
| *k.* Ad. sk. | Bootan (*Pemberton*). | India Museum. |
| *l.* Ad. sk. | Shuaykoo, Upper Burmah, Jan. 21, 1868. | Dr. J. Anderson [C.]. |
| *m.* ♂ ad. sk. | Sawady, Upper Burmah, Jan. 30, 1875. | Dr. J. Anderson [C.]. |
| *n.* Ad. sk. | Ponsee, Kakhyen hills, Feb. 6, 1868. | Dr. J. Anderson [C.]. |
| *o.* Ad. sk. | Ponsee, April 27, 1868. | Dr. J. Anderson [C.]. |
| *p.* Ad. sk. | Tonghoo (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |
| *q.* ♂ ad. sk. | Karen-nee, March 27, 1874 (*R. G. W. R.*). | Lieut. R. G. Wardlaw Ramsay. |
| *r, s.* Ad. sk. | Tenasserim. | J. C. D. Packman, Esq. [P.]. |
| *t.* ♂ ad. sk. | Foot of Mwalabo, April 1878 (*W. Davison*). | A. O. Hume, Esq. |
| *u.* Ad. sk. | Cambodia. | M. Mouhot [C.]. |
| *v, w.* Ad. sk. | Penang (*Dr. Cantor*). | India Museum. |
| *x.* Ad. sk. | Malacca (*Dr. Cantor*). | India Museum. |
| *y.* Ad. sk. | Penang. | A.R.Wallace, Esq. [C.]. |
| *z.* ♀ ad. sk. | South Andamans, March 28, 1873 (*R.G.W.R.*). | Lieut. R. G. Wardlaw Ramsay. |
| *a'.* ♂ ad. sk. | Port Blair, S. Andamans, July 15, 1876 (*Capt. Wimberley*). | R. B. Sharpe, Esq. [P.]. |

## 2. Otocompsa emeria.

The Bengal Redstart, *Albin, Birds*, iii. p. 52, pl. 52; *Edwards, Birds*, iv. p. 190, pl. 190.
Muscicapa emeria, *Linn. Syst. Nat.* i. p. 326 (*ex Albin*).
Lanius emeria, *Shaw, Gen. Zool.* vii. p. 332.
Ixos jocosus (*nec L.*), *Sykes, P. Z. S.* 1832, p. 88.
Hæmatornis jocosus, *Jerd. Madr. Journ.* x. p. 250.
Otocompsa fuscicaudata, *Gould, P. Z. S.* 1865, p. 664; *Hume, Str. F.* 1873, p. 309; *id. Nests & Eggs Ind. B.* p. 288; *Butler, Str. F.* 1875, p. 473; *Fairb. Str. F.* 1876, p. 258; *Hume, t. c.* p. 458; *Fairb. Str. F.* 1877, p. 405; *id. Str. F.* 1879, p. 98.
Pycnonotus fuscocaudatus, *Gray, Hand-l. B.* i. p. 271, no. 3962.
Pycnonotus emeria, *Gray, Hand-l. B.* i. p. 271, no. 3967.

*Adult.* General colour above earthy brown, the wings and tail brown like the back, the outer coverts and the quills and tail-feathers rather darker, all the shafts of the feathers reddish brown; head and nape blackish brown, with a very long crest, the forehead, lores, and feathers under the fore part of the eye also blackish; under the hinder part of the eye a tuft of bright crimson feathers; ear-coverts pure white; cheeks also white, separated from the ear-coverts by a narrow

line of blackish feathers running from just below the fore part of the eye below the ear-coverts to the sides of the neck; throat and fore neck pure white, as also the centre of the body, the sides of which are brown, as well as the thighs; the sides of the upper breast deep brown, extending in a half-crescent on each side of the breast, a few feathers in the centre of which have also brown margins; under tail-coverts scarlet: under wing-coverts isabelline brown, the edge of the wing darker brown. Total length 8·2 inches, culmen 0·7, wing 3·2, tail 3·5, tarsus 0·8.

The Madras Red-whiskered Bulbul appears to be found all over Southern India, and occurs also at Mount Aboo.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | Madras. | Rev. H. H. Baber [P.]. |
| *c*. Ad. sk. | Madras. | India Museum. |
| *d*. Ad. sk. | Neilgherries. | India Museum. |
| *e*. Ad. sk. | Coorg. | India Museum. |
| *f*. Ad. sk. | Deccan (*Sykes*). | India Museum. |
| *g*. Juv. sk. | Malabar. | Purchased. |
| *h*. Ad. sk. | Malabar. | Lieut. R. G. Wardlaw Ramsay. |
| *i*. ♂ ad. sk. | Trevandrum, Travancore, Nov. 18, 1878. | F. W. Bourdillon, Esq. [C.]. |
| *k*. Ad. sk. | Candeish. | Lieut. R. G. Wardlaw Ramsay. |
| *l*. ♀ ad. sk. | Mount Aboo, June 26, 1876 (*R. Adam*). | Lieut. R. G. Wardlaw Ramsay. |
| *m*. ♂ ad. sk. | Mount Aboo, May 6, 1868 (*G. King*). | Dr. J. Scully [P.]. |

### 3. Otocompsa leucogenys.

Brachypus leucogenys, *Gray & Hardw. Ill. Ind. Zool.* i. pl. 35. fig. 3.
Pycnonotus leucogenys, *Blyth, J. A. S. Beng.* xiv. p. 567; *Gray, Gen. B.* i. p. 237; *Blyth, Cat. B. Mus. As. Soc.* p. 209; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 242; *Gray, Hand-l. B.* i. p. 271, no. 3965.
Hæmatornis leucogenys, *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 89.
Ixos leucogenys, *Bp. Consp.* i. p. 265.
Otocompsa leucogenys, *Jerd. B. Ind.* ii. p. 91; *Hume, Nests & Eggs Ind. B.* p. 285; *id. Str. F.* 1879, p. 98; *Scully, t. c.* p. 296.

*Adult.* General colour above ashy brown, very faintly washed with olive, more plainly on the upper tail-coverts, which are darker brown; wing-coverts and quills brown, edged with dull olive; tail dark brown, paler brown near the base, all the feathers edged with olive, the centre ones with a tiny spot of white at the tip, this white spot increasing in size towards the outer feathers; crown of head darker brown than the back, the crest-feathers long and somewhat recurved, margined with dull whity brown, producing a somewhat streaked appearance; lores and feathers round the eye black, relieved by a streak of white, which runs from the base of the nostrils above the fore part of the eye; ear-coverts silky white, as also the hinder cheeks, behind them a small spot of blackish brown; remainder of cheeks and throat blackish brown; remainder of under surface of body ashy brown, somewhat mottled with dusky-brown centres to the feathers; thighs ashy brown; under tail-coverts

bright yellow; under wing-coverts and axillaries ashy brown, those near the edge of the wing whity-brown, washed with yellow; quills brown, ashy along the inner webs; "bill black; feet plumbeous black; iris light brown, in young birds dark" (*Scully*). Total length 7·5 inches, culmen 0·7, wing 3·55, tail 3·4, tarsus 0·85.

The White-cheeked Crested Bulbul is found throughout the whole Himalayan range, from Cashmere to Bootan, up to 5000 feet elevation.

| | | |
|---|---|---|
| *a, b.* Ad. sk. | Himalayas. | J. R. Reeves, Esq. [P.]. |
| *c.* Ad. sk. | Himalayas. | India Museum. |
| *d, e, f.* Ad. sk. | N.W. Himalayas. | Capt. Stackhouse Pinwill [P.]. |
| *g.* Ad. sk. | Cashmere. | Purchased. |
| *h, i.* Ad. sk. | Kumaon (*Strachey*). | India Museum. |
| *k.* Ad. sk. | Darjiling (*Eccles*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *l, m.* ♀ ad. sk. | Valley of Nepal. | Dr. J. Scully [P.]. |
| *n, o.* Ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *p.* Ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *q.* Ad. sk. | Nepal (*B. H. Hodgson*). | India Museum. |
| *r, s.* Ad. sk. | Bootan (*Pemberton*). | India Museum. |

### 4. Otocompsa flaviventris.

Vanga flaviventris, *Tickell, J. A. S. Beng.* ii. p. 573.
Brachypus melanocephalus, *Gray & Hardw. Ill. Ind. Zool.* ii. pl. 35. fig. 1.
Brachypus plumifera, *Gould, P. Z. S.* 1837, p. 137.
Alcurus melanocephalus, *Hodgs. in Gray's Zool. Misc.* p. 83.
Pycnonotus melanocephalus, *Blyth, J. A. S. Beng.* xiv. p. 569; *id. Cat. B. Mus. As. Soc.* p. 210; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 247.
Pycnonotus flaviventris, *Gray, Gen. B.* i. p. 237; *id. Hand-l. B.* i. p. 269, no. 3933; *Hume, Nests & Eggs Ind. B.* p. 285.
Hæmatornis melanocephalus, *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 89.
Ixus melanocephalus, *Bp. Consp.* i. p. 265.
Rubigula flaviventris, *Jerd. B. Ind.* ii. p. 88; *Blyth & Wald. B. Burm.* p. 136; *Hume, Str. F.* 1878, p. 317; *id. Str. F.* 1879, p. 98; *Scully, Str. F.* 1879, p. 295.

*Adult.* General colour above olive-yellow, the wing-coverts like the back; quills dusky brown, externally olive-yellow like the back, the edges of the feathers a little brighter; tail-feathers brown, slightly paler at their ends and margined with olive-yellow; crown of head and nape, as well as the sides of the head and throat, blue-black, with a large crest springing from the centre of the crown; remainder of under surface of body bright yellow, washed with olive on the breast and sides of the body; thighs yellow; under wing-coverts yellow, or white washed with yellow; quills ashy brown below, white along the edge of the inner web; "bill black; legs and feet dark plumbeous or greenish black; irides pale yellow" (*Davison*); "feet brownish black" (*Scully*). Total length 7·4 inches, culmen 0·6, wing 3·65, tail 3·6, tarsus 0·7.

The Black-crested Yellow Bulbul inhabits the Himalayas, and

also occurs in the forests of Central India. Eastwards it extends through the Burmese countries into Cochin China.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | Nynee Tal. | Capt. Stackhouse Pinwill [P.]. |
| *c*, *d*, *e*. Ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *f*. Ad. sk. | Nepal (*B. H. Hodgson*). | India Museum. |
| *g*, *h*. Ad. sk. | Bootan (*Pemberton*). | India Museum. |
| *i*. Ad. sk. | Tenasserim (*Dr. Helfer*). | India Museum. |
| *k*. Ad. sk. | Tenasserim. | J. C. D. Packman, Esq. [P.]. |
| *l*. Ad. sk. | Bassein, Pegu. | W. T. Blanford, Esq. [P.]. |
| *m*. Ad. sk. | Cochin China. | M. E. Pierre [P.]. |

### 5. Otocompsa montis.

Rubigula montis, *Sharpe, P. Z. S.* 1879, p. 247; *Reichen. & Schalow, J. f. O.* 1879, p. 433.

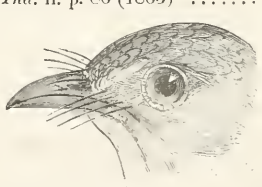
*Adult* (type of species). General colour above olive-yellowish, the wing-coverts like the back: quills and tail dull blackish brown, externally washed with olive-yellow like the back, the greater coverts also brown washed with olive-yellow; tail-feathers paler brown at the tip of the inner web; head crested, black, as also the sides of the face, ear-coverts, and cheeks; entire under surface of body yellow, slightly more olive-green on the sides; under wing-coverts yellow, the longer ones white washed with yellow; quills sepia-brown below, white along the edge of the inner webs. Total length 5·7 inches, culmen 0·5, wing 3·1, tail 2·8, tarsus 0·7. (*Mus. Univ. Oxon.*)

The Bornean Yellow Bulbul has only been met with on Kina-Balu mountain, in North-western Borneo.

## 23. KELAARTIA.

Type.

Kelaartia, *Jerd. B. Ind.* ii. p. 86 (1863) ..... K. penicillata.



Head of *Kelaartia penicillata*.

*Range*. Confined to Ceylon. ? Southern India.

### 1. Kelaartia penicillata.

Yellow-eared Bulbul, *Jerd. Madr. Journ.* xiii. p. 168 (1844).

Kelaartia penicillata, *Jerd. B. of Ind.* ii. p. 86; *Holdsw. P. Z. S.* 1872, p. 450; *Legge, Ibis*, 1874, p. 20; *id. Str. F.* 1876, p. 245; *id. B. Ceylon*, p. 480, pl. 23. fig. 1.

Pycnonotus penicillatus, *Blyth, J. A. S. Beng.* xx. 1851, p. 178; *Kelaart, Prodr. Cat.* p. 123; *Layard, Ann. & Mag. Nat. Hist.* 1854, xiii. p. 125; *Gray, Hand-l. B.* i. p. 269, no. 3940.

*Adult.* General colour above olive-green; wing-coverts like the back; quills dusky brown, externally olive-green like the back, the innermost secondaries entirely dark olive-green; tail-feathers dark olive-brown, edged with yellowish olive along the outer webs, the outer feathers with a narrow yellow edging at their tip; head crested, the forehead and crown brown, the nape-feathers dusky brown, washed with olive and faintly edged with olive-yellow; a streak of white at the base of the nostril running up on each side of the forehead; a smaller white spot above the eye; lores, region of the eye, sides of face, and ear-coverts dusky brown, the hinder portion of the ear-coverts and the feathers below the latter on the side of the throat ashy grey; in the middle of the ear-coverts a yellow spot; above the ear-coverts a line of pointed feathers of a bright yellow colour; fore part of cheeks, chin, and upper throat white; lower throat bright yellow; fore neck, breast, and sides of body olive-yellow, tinged with greenish on the sides of the breast; centre of body, abdomen, and under tail-coverts brighter yellow; thighs externally olive-greenish, internally yellow; under wing-coverts and axillaries yellow, as also the edge of the wing, the wing-coverts adjoining the latter olive; quills brown below, whitish along the inner web; "bill black; tarsi and feet dark leaden blue; iris red, mingled with brown, or red deepening to brown next to the pupil" (*W. Vincent Legge*). Total length 7·5 inches, culmen 0·65, wing 3·1, tail 3·1, tarsus 0·9.

Captain Legge gives the dimensions of the male bird as follows:— Total length 7·5 to 8 inches, wing 3·2 to 3·4, tail 3·1 to 3·2, tarsus 0·75 to 0·8, mid toe and claw 0·8, hind toe and claw beneath 0·6, bill to gape 0·85. The female, he says, is slightly smaller: length 7·1 inches, wing 3·1.

Young birds of the year have the feathers of the head edged whitish, and the yellow of the throat less in extent and more clearly defined from the hue of the chest. (*W. V. Legge.*)

The Yellow-eared Bulbul is confined to the hills of Ceylon, where it occurs up to 3500 feet, in certain districts being common at 4000 feet elevation. It is said to have been once obtained by Dr. Jerdon on the Nilghiri hills; but the specimen was destroyed, and its occurrence out of Ceylon is doubtful.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | Ceylon. | Dr. Kelaart [P.]. |
| *c*. Ad. sk. | Ceylon. | Hugh Cuming, Esq. [C.]. |

## 24. TYLAS.

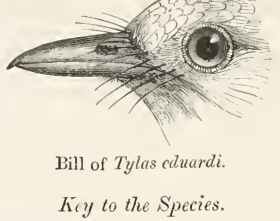
Type.

Tylas, *Hartl. P. Z. S.* 1862, p. 152 ..... T. eduardi.

*Range.* Confined to Madagascar.

*Obs.* During a recent visit to the Leiden Museum, I carefully examined all the specimens of *Tylas* in that collection, including the types of Schlegel's *T. albigularis*, which are from Mouroundava (*Van Dam*). I came to the conclusion that five species could be recognized, as set forth in my "Key" given below. I must confess that on studying the genus soon after at Paris I found great difficulty in

determining the specimens in the Museum by the help of my Leiden experience. I therefore consider the question of the number of species found in Madagascar as still a perfectly open one.



Bill of *Tylas eduardi*.

*Key to the Species.*

*a*. Throat black.
  *a'*. Under surface fawn-coloured ..... *eduardi*, p. 164.
  *b'*. Under surface white ..... *alfredi*, p. 165.
*b*. Throat white.
  *c'*. No breast-band.
    *a''*. Breast white or light tawny buff; back grey, with a faint olive tinge ..... *albigularis*, p. 165.
    *d''*. Breast deep fawn-buff; back olive-brown .. *fulviventris*, p. 165.
  *d'*. A distinct grey breast-band ..... *strophiatus*, p. 166.

### 1. Tylas eduardi.

Tylas eduardi, *Hartl. P. Z. S.* 1862, p. 152, pl. xviii.; *E. Newt. Ibis*, 1864, p. 273; *Sharpe, P. Z. S.* 1870, p. 385; *id. Cat. Afr. B.* p. 21; *Hartl. Vög. Madag.* p. 142; *Grand. et Milne-Edw. Hist. Phys. Madag.* pl. 141. fig. 2.
Turdus goudoti, *Verr. Nouv. Arch. Mus.* ii., *Bull.* p. 77, pl. 5. fig. 2.
Turdus edwardi, *Schl. & Poll. Faun. Madag., Ois.* p. 158.

*Adult male*. General colour above ashy olive, the hind neck grey and contrasting with the back: wing-coverts ashy grey, slightly washed with olive-brown; bastard-wing and primary-coverts and quills blackish, with a narrow edging of grey on the outer web, much broader on the secondaries, the innermost of which are almost entirely ashy grey and have narrow white tips: upper tail-coverts and tail-feathers ashy grey, the latter narrowly tipped with white; head glossy greenish black, the forehead dark slaty grey; sides of face and throat also glossy black, the base of the chin with a few white edgings to the feathers; sides of neck white, forming a narrow collar across the throat; remainder of under surface of body ochraceous buff, with a slight wash of brown on the flanks; thighs ashy grey; under wing-coverts dark ashy grey, the axillaries light ochraceous buff; quills ashy blackish below, greyer along the edge of the inner web. Total length 8·7 inches, culmen 0·85, wing 4·7, tail 3·5, tarsus 0·9.

Newton's Black-headed Bulbul is found in Madagascar, where it inhabits the northern and north-western portions of the island.

| | | |
|---|---|---|
| *a, b*. Ad. sk. | N. Madagascar. | A. Crossley, Esq. [C.]. |
| *c*. Ad. sk. | N. Madagascar (*A. Crossley*). | R. B. Sharpe, Esq. |
| *d*. Juv. sk. | Madagascar. | R. B. Sharpe, Esq. |

### 2. Tylas alfredi.

*Adult male.* General colour above light slaty grey, with somewhat of a greenish gloss; wing-coverts like the back; bastard-wing and primary-coverts black, with slight grey edgings; quills black, the primaries edged with slaty grey, broader on the secondaries, the innermost of which are entirely like the back; tail-feathers slaty grey, the shafts black, the outer feathers narrowly tipped with white; crown and sides of head, as well as the entire throat, glossy black, with a slight shade of grey on the forehead; remainder of under surface of body, from the fore neck downwards, pure white, ascending on the sides of the neck to the sides of the nape and forming a half-collar; sides of breast washed with grey, as also the sides of the body; thighs dark slaty grey; under wing-coverts dark slaty grey, with black edges to those near the outer web; under surface of quills blackish, shaded with ashy grey along the inner web. Total length 7·5 inches, culmen 0·9, wing 4·5, tail 3·25, tarsus 1. (*Mus. Lugd.*)

The White-breasted Madagascar Bulbul inhabits the south-western portion of the island of Madagascar. The only specimen which I have as yet seen is in the Leiden Museum.

### 3. Tylas albigularis.

Tylas edwardsi (*lapsu*), *Grand. Rev. et Mag. de Zool.* 1867, p. 359 (*nec Hartl.*).
Tylas albigularis, *Hartl. Vög. Madag.* 1877, p. 143 (*ex Schl. MS.*).
Tylas madagascariensis, *Grandid. & Milne-Edwards, Hist. Phys. Madag.* pls. 143, 144.

*Adult.* General colour above ashy grey, washed with light olive-brown, especially on the lower back and rump; wing-coverts like the back; quills dark brown, externally margined with ashy brown, the secondaries with ashy grey, the innermost being like the back; tail light brown, with indistinct dusky cross bars under certain lights; crown of head and nape glossy black, the forehead ashy grey; lores darker ashy grey; feathers round the eye and upper edge of ear-coverts black; cheeks, sides of face, and sides of neck white, the latter almost forming a collar round the hind neck; throat and abdomen white; fore neck and breast, sides of body, and thighs light fawn-buff, the under tail-coverts the same but paler; under wing-coverts dark slaty grey, the inner ones and the axillaries fawn-buff; lower under wing-coverts whitish; quills dark brown below, ashy along the inner web. Total length 7·1 inches, culmen 0·9, wing 4·4, tail 3·4, tarsus 0·85.

Schlegel's Black-headed Bulbul is found in the vicinity of Mouroundava, in South-western Madagascar.

*a.* Ad. sk. Madagascar (*Verreaux*). R. B. Sharpe, Esq.

### 4. Tylas fulviventris.

*Adult male.* Similar to *Tylas eduardi*, but having the throat pure white, instead of black. (*Mus. Lugd.*)

*Obs.* It is very probable that this may prove to be a sex of *T. eduardi*, but there are several reasons why this should not be the case. In the Leiden Museum are five birds of the present species, all alike, and all determined as *males*. Again, although the late Mr. Crossley collected numerous examples of *T. eduardi*, he never once came across any white-throated birds, which he would surely have done if they had been of the same species, as it was evident that *Tylas* was not a scarce bird in the parts he visited. While admitting that the subject is full of difficulty, I think it possible that there may turn out to be in Madagascar five distinct races or species of *Tylas*.

The Buff-breasted Black-headed Bulbul is only known from South-western Madagascar. The specimens collected by Mr. Audebert, and now in the Leiden Museum, are marked "Lavary."

### 5. Tylas strophiatus.

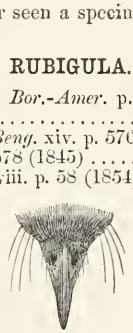
Tylas strophiatus, *Stejneger*, *Orn. Centralbl.* 1879, p. 182.

Above ashy grey; the head black, with a slight steel gloss, the forehead scarcely distinct; lores and region of the eye black; chin white, with a small black spot; throat and fore neck pure white; a pale grey pectoral band decidedly circumscribed; rest of the belly whitish, tinged with ochraceous. Bill from front 0·8 inch, wing 4·15, tail 3·4, tarsus 0·85.

Stejneger's Black-headed Bulbul is only known from Western Madagascar. I have never seen a specimen.

## 25. RUBIGULA.

| | Type. |
|---|---|
| Brachypus, *Swains. Faun. Bor.-Amer.* p. 485 (1839, *nec Sw.* 1827) | R. dispar. |
| Rubigula, *Blyth, J. A. S. Beng.* xiv. p. 576 (1845) | R. dispar. |
| Ixodia, *Blyth, tom. cit.* p. 578 (1845) | R. cyaniventris. |
| Meropixus, *Bp. C. R.* xxxviii. p. 58 (1854) | R. melanictera. |



Bill of *Rubigula dispar*.

*Key to the Species.*

*a*. Breast uniform.
  *a'*. Belly yellow.
    *a''*. Throat fiery red.
      *a'''*. Larger: chin conspicuously black; entire throat brilliant scarlet ..... *dispar*, p. 167.
      *b'''*. Smaller: black chin-spot scarcely visible; throat orange-scarlet, the lower part of it yellow, like the rest of the under surface ..... *gularis*, p. 167.
    *b''*. Throat yellow, like the rest of the under surface of body ..... *melanictera*, p. 168.

*b'*. Belly grey.
*c'''*. Ear-coverts and sides of face dark slaty grey ..... *cyaniventris*, p. 169.
*d'''*. Ear-coverts and sides of face blackish .. *pavoticalis*, p. 170.
*b*. Breast scaly in appearance, the feathers black, edged with white.
*c'*. White confined to a spot at the tip of the tail-feathers ..... *squamata*, p. 170.
*d'*. White extending for some distance up the outer tail-feathers ..... *webberi*, p. 171.

## 1. Rubigula dispar.

Turdus dispar, *Horsf. Trans. Linn. Soc.* xiii. p. 150; *Raffl. t. c.* p. 310 *Temm. Pl. Col.* ii. pl. 137.
Brachypus dispar, *Swains. Faun. Bor.-Amer., Birds*, p. 485; *Bp. Consp.* i. p. 263.
Ixos dispar, *Temm. Tabl. Méth.* p. 15.
Rubigula dispar, *Blyth, J. A. S. Beng.* xiv. p. 576; *Tweedd. Ibis*, 1877, p. 306; *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 220; *Nichols. Ibis*, 1861, p. 146.
Pycnonotus dispar, *Gray, Gen. B.* i. p. 237; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 245; *Gray, Hand-l. B.* i. p. 269, no. 3937.

*Adult male*. General colour above olive-yellow; wing-coverts like the back; quills dusky brown, externally olive-yellow like the back; tail-feathers brown, with paler tips tinged with yellow, the edges to the feathers olive-yellowish; crown of head and nape, as well as the entire sides of the head, purplish black; chin black; feathers of the throat loose and stiffened, of a brilliant scarlet; remainder of under surface of body, from the throat downwards, deep orange-yellow, paler on the abdomen, vent, and under tail-coverts: under wing-coverts and axillaries bright yellow, or white washed with yellow; quills dusky brown below, white along the inner web; "iris vermilion-red" (*Beccari*). Total length 7·6 inches, culmen 0·6, wing 3·15, tail 3·2, tarsus 0·65.

*Adult female*. Similar to the male in colour; "iris straw-colour" (*H. O. Forbes*). Total length 7·2 inches, culmen 0·6, wing 3·1, tail 3·15, tarsus 0·65.

The Ruby-throated Bulbul is only known from the islands of Java and Sumatra.

| | | |
|---|---|---|
| *a*. Ad. sk. | Java (*Dr. Horsfield*). | India Museum. (Type of species.) |
| *b*. ♂ ad. sk. | E. Java. | A. R. Wallace, Esq. [C.]. |
| *c*. ♀ ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *d*. Ad. sk. | Sumatra (*C. Bock*). | Lieut. R. G. Wardlaw Ramsay. |
| *e*. Ad. sk. | Sumatra (*Raffles*). | India Museum. |

## 2. Rubigula gularis*.

Brachypus gularis, *Gould, P. Z. S.* 1835, p. 186; *Bp. Consp.* i. p. 264; *Walden, Ibis*, 1866, p. 423.

* Considerable doubts were for a long time thrown on the right of this species to bear the name of *gularis* of Gould, inasmuch as that author omitted all men-

Brachypus rubineus, *Jerd. Madr. Journ.* x. p. 346 (1839); *id. Illustr. Ind. Orn.* pl. xxxvii.
Rubigula gularis, *Blyth, J. A. S. Beng.* xiv. p. 576, xv. p. 287; *Jerd. B. Ind.* ii. p. 87; *Hartl. Str. F.* 1877, p. 405; *Hume, Str. F.* 1879, p. 98.
Pycnonotus gularis, *Gray, Gen. B.* i. p. 237; *Blyth, Cat. B. Mus. As. Soc.* p. 211; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 245; *Gray, Hand-l. B.* i. p. 269, no. 3938.
Pycnonotus rubineus, *Gray, Gen. B.* i. p. 237.

*Adult.* Above yellowish olive, the wing-coverts like the back, but narrowly edged with brighter yellow; quills dusky brown, externally yellowish olive, with a narrow outer margin of brighter yellow; tail-feathers olive-brown, edged with brighter yellow, the outer feathers with pale yellow ends; crown and nape and entire sides of head glossy black, as also a tiny chin-spot; throat orange-scarlet; remainder of under surface of body, from the lower throat downwards, bright yellow, slightly inclining to orange, the sides of the chest and flanks washed with olive; under wing-coverts and axillaries yellow, or white washed with yellow; quills dusky brown below, whitish along the edge of the inner web; "bill black; legs greenish dusky; iris light yellow" (*Jerdon*). Total length 6 inches, culmen 0·6, wing 2·8, tail 2·5, tarsus 0·6.

The Indian Ruby-throated Bulbul is only known from Southern India.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | Malabar. | Purchased. |
| *c*. Ad. sk. | Madras. | Purchased. |
| *d*. Ad. sk. | Madras (*Wight*). | India Museum. |

### 3. Rubigula melanictera.

Yellow-breasted Flycatcher, *Brown, Illustr. Zool.* p. 80, pl. 32.
Muscicapa melanictera, *Gm. S. N.* i. p. 941 (*ex Brown*).
Ægithina atricapilla, *Vieill. Nouv. Dict. d'Hist. Nat.* i. p. 176 (1816).
Iora nigricapilla, *Drapiez, Dict. Class.* vi. p. 170 (*teste Walden*).
Rubigula aberrans, *Blyth, J. A. S. Beng.* xv. p. 288.
Pycnonotus atricapillus, *Blyth, Cat. B. Mus. As. Soc.* p. 211; *Layard, Ann. Nat. Hist.* (2) xiii. p. 125; *Gray, Hand-l. B.* i. p. 269, no. 3939.
Pycnonotus nigricapillus, *Kelaart, Prodr. Cat.* p. 123.
Rubigula gularis, *Kelaart, t. c.* p. 123.
Brachypus gularis, *Bp. Consp.* i. p. 264 (*nec Gould*).
Meropixus melanicterus, *Bp. C. R.* xxxviii. 1854, p. 58.
Rubigula melanictera, *Walden, Ibis*, 1866, p. 321; *Blyth, Ibis*, 1867, p. 304; *Holdsw. P. Z. S.* 1872, p. 451; *Legge, Str. F.* 1875, p. 368; *id. Birds of Ceylon*, p. 477.

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tion of the scarlet throat, which is the most striking feature in the species, and without which the description suits the Ceylonese species (*R. melanicterus*). Lord Walden, in an elaborate paper on the "*Muscicapa melanictera* of Gmelin" (Ibis, 1866, p. 316), called attention to the omission in Mr. Gould's description, and added *Brachypus gularis*, Gould, as a synonym of the Ceylonese *Rubigula melanictera*. Later on however, Mr. Gould showed him the *type* of his *Brachypus gularis* from Travancore; and the species must therefore stand under his name, as the colouring of the throat was omitted by a *lapsus calami*. (*Cf.* Walden, Ibis, 1866, p. 423.)

*Adult.* General colour above dull olive-yellow, slightly paler on the rump; wing-coverts like the back; quills brown, the outer webs olive-yellow, a little brighter than the back; tail-feathers dusky brown, edged with olive near the base, all but the two central feathers tipped with a white spot, increasing in size towards the outermost; crown of head and nape and entire sides of face glossy black; throat and entire under surface of body golden yellow, washed with olive on the sides of the breast and flanks; under wing-coverts and axillaries yellow, or white washed with yellow; quills ashy brown below, whitish along the inner web; "bill black; legs and feet blackish; iris dull red" (*Capt. W. Vincent Legge*).

*Adult male* and *female.* Length from 6·3 to 6·5 inches, wing 2·7 to 2·9, tail 2·6 to 2·6, tarsus 0·6, mid toe and claw 0·58, hind toe and claw 0·48, bill to gape 0·75 to 0·8. Females are the smaller of the sexes (*W. V. Legge, l. c.*). In the *female*, according to Legge, the iris is dark brown, and the legs and feet deep plumbeous or blackish blue.

The Black-headed Bulbul is peculiar to the island of Ceylon, inhabiting the forest tracts in most parts of the island, and, in the Kandyan province, attaining a height of 5000 feet.

| | | | |
|---|---|---|---|
| *a.* ♀ ad. sk. | Rackwane, Ceylon, Jan. 13, 1866 (*S. Chapman*). | Marquis of Tweeddale [P.]. |
| *b.* Ad. sk. | Ceylon. | F. Godman and O. Salvin, Esqrs. [P.]. |
| *c.* Ad. sk. | Ceylon. | E. L. Layard, Esq. [C.]. |
| *d.* Ad. sk. | Ceylon. | Hugh Cuming, Esq. [C.]. |

### 4. Rubigula cyaniventris.

Turdus, sp. 6, *Raffl. Trans. Linn. Soc.* xiii. p. 311.

Pycnonotus cyaniventris, *Blyth, J. A. S. Beng.* xi. p. 792; *Strickl. P. Z. S.* 1846, p. 101; *Gray, Gen. B.* i. p. 237; *Blyth, Cat. B. Mus. As. Soc.* p. 211; *Gray, Hand-l. B.* i. p. 271, no. 3971.

Ixodia cyaniventris, *Blyth, J. A. S. Beng.* xiv. p. 578.

Malacopteron aureum, *Eyton, Ann. Nat. Hist.* xvi. p. 229 (1845).

Ixidia cyaniventris, *Bp. Consp.* i. p. 260; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 247; *Stoliczka, J. A. S. B.* xxxix. p. 316; *Hume & Davis. Str. F.* 1874, p. 477; *Hume, Str. F.* 1878, p. 320, 1879, pp. 63, 98.

Brachypus poliopsis, *Bp. Consp.* i. p. 264 (*ex Müll. MS. in Mus. Lugd.*).

*Adult female.* General colour above olive-yellow, the wing-coverts like the back; quills dark brown, externally olive-yellow, brighter than the back; tail-feathers light brown, washed with olive-yellow on the outer webs; head and neck slaty blue, as also the sides of the neck, ear-coverts, sides of face, and under surface of body; above the eye a faint streak of lighter grey; lores and feathers round the eye blackish; lower abdomen white; thighs dusky grey, washed with olive-yellow; under tail-coverts bright yellow; under wing-coverts white, the edge of the wing brighter yellow; "bill black; legs and feet very dark plumbeous; claws horny brown, sometimes almost black; iris dark brown, dark plumbeous slate-colour, and

grey-brown" (*W. Davison*). Total length 5·5 inches, culmen 0·5, wing 2·6, tail 2·1, tarsus 0·6.

*Female.* As a rule, the grey is altogether somewhat paler and the yellow slightly duller (*Hume*).

Mr. Hume gives the following measurements of the sexes:—

. *Males.* Length 6·25 to 6·5 inches; tail from vent 2·55 to 2·7; wing 2·95 to 3·12; tarsus 0·55 to 0·65; bill from gape 0·75.

*Females.* Length 6·25 to 6·45; tail from vent 2·25 to 2·5; wing 2·82 to 2·85; tarsus 0·6; bill from gape 0·65.

The Grey-bellied Bulbul ranges from the extreme south of Tenasserim down the Malayan peninsula to Sumatra.

| | | |
|---|---|---|
| *a.* Ad. sk. | Malacca (*Dr. Cantor*). | India Museum. |
| *b.* ♀ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *c, d.* Ad. sk. | Malacca. | A. Charlton, Esq. [P.]. (Type of *Malacopteron aureum.*) |
| *e.* Ad. sk. | Malacca. | India Museum. |
| *f.* Ad. sk. | Penang (*Dr. Cantor*). | India Museum [C.]. |
| *g.* Ad. st. | Sumatra. | Massena Collection. |
| *h.* Ad. sk. | Sumatra (*Raffles*). | India Museum. |

### 5. Rubigula paroticalis.

Ixidia paroticalis, *Sharpe, Ibis,* 1878, p. 418; *id. Ibis,* 1879, p. 256.

*Adult.* Similar to *B. cyaniventris*, but a little larger; the grey on the head everywhere darker; a triangular patch before the eye, cheeks, and ear-coverts blackish. Total length 6·3 inches, culmen 0·55, wing 2·95, tail 2·45, tarsus 0·55.

*Obs.* After Mr. Hume's remarks on the way in which the grey colouring of *B. cyaniventris* differs in intensity, I doubt if the present species will prove to be really different from the Malaccan bird.

The Borneau Grey-bellied Bulbul replaces the foregoing species in the island of Borneo.

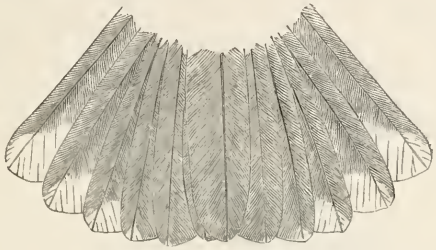
| | | |
|---|---|---|
| *a.* Ad. sk. | Sarawak, Borneo. | Henry Everett, Esq. [C.]. (Type of species.) |

### 6. Rubigula squamata.

Turdus squamatus, *Temm. Pl. Col.* ii. pl. 453. fig. 2.
Ixos squamatus, *Temm. Tabl. Méth.* p. 15.
Brachypus squamatus, *Less. Rev. Zool.* 1840, p. 137; *Bp. Consp.* i. p. 264.
Pycnonotus squamatus, *Gray, Gen. B.* i. p. 237; *id. Hand-l. B.* i. p. 271, no. 3974.
Ixidia squamata, *Nichols. Ibis,* 1881, p. 147.

*Adult.* General colour above dark olive-yellow, brighter and more golden yellow on the rump and upper tail-coverts; wing-coverts like the back, the edges to the greater series bright yellow; quills blackish, externally olive-yellow, brighter on the margins; tail-feathers blackish, all but the centre rectrices tipped with a white spot, which increases in size towards the outer ones; head and nape, as well as the sides of face and ear-coverts, purplish black; cheeks and throat white; fore neck, breast, and sides of body scaly in

appearance, the feathers being black with white margins; centre of body and abdomen white; thighs white, tinged with yellow; under tail-coverts bright yellow; wing-coverts and axillaries white, slightly washed with bright yellow; quills dusky brown, white along the edge of the inner web; "irides dark red, encircling a lighter red ring" (*H. O. Forbes*). Total length 6 inches, culmen 0·6, wing 2·9, tail 2·45, tarsus 0·65.



Tail of *Rubigula squamata*.

The Scaly-breasted Bulbul is only known from the island of Java.

| | | | |
|---|---|---|---|
| *a*. Ad. sk. | Java. | Purchased. |
| *b*. Ad. sk. | Java. | |

### 7. Rubigula webberi.

Ixidia squamata (*nec Temm.*), *Salvad. Ucc. Born.* p. 200; *Sharpe, Ibis*, 1878, p. 419

Ixidia webberi, *Hume, Str. F.* 1879, pp. 40, 63; *Reichen. & Schalow, J. f. O.* 1879, p. 432.

*Adult.* Very similar to *R. squamata* of Java, but distinguished by the much larger amount of white on the outer tail-feathers. Total length 6·4 inches, culmen 0·55, wing 2·9, tail 2·7, tarsus 0·6.

Tail of *Rubigula webberi*.

*Obs.* The only specimen from Borneo that I have yet seen differs from Malayan examples in having ashy-grey wing- and tail-feathers. As, however, they show a considerable amount of black mottling, the

colouring may be imperfect. In the extent of white on the tail the Bornean and Malaccan examples agree; and the question of their further identity must remain till a larger series can be compared. They agree with Hume's description of *Ixidia webberi*.

Webber's Bulbul replaces the foregoing species in Borneo, Sumatra, and the Malayan peninsula.

| | | |
|---|---|---|
| *a*. Ad. sk. | Sumatra. | Purchased. |
| *b*. Ad. sk. | Sarawak, Borneo. | Henry Everett, Esq. [C.]. |
| *c*. Ad. sk. | | |

## 26. SPIZIXUS.

Type.
Spizixos, *Blyth, J. A. S. Beng.* xiv. p. 571 (1845) ..... S. canifrons.

Head of *Spizixus canifrons*.

*Range.* Hills of Sylhet, Khasia hills, Foochow, and Formosa.

*Key to the Species.*

*a*. Ear-coverts uniform brown; head black; forehead grey; no white patch on sides of throat. *canifrons*, p. 172.
*b*. Ear-coverts streaked with white; a white patch on each side of the throat.
*a'*. Crown black, nape grey ..... *semitorques*. p. 173.
*b'*. Crown entirely grey ..... *cinereicapillus*, p. 173.

### 1. Spizixus canifrons.

Spizixus canifrons, *Blyth, J. A. S. Beng.* xiv. p. 571. xx. p. 520; *id. Cat. B. Mus. As. Soc.* p. 339; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 251; *Gould, B. Asia*, part xviii.; *Godwin-Austen, J. A. S. Beng.* 1870, vol. xxxix. p. 106; *Blyth, Ibis*, 1872, p. 90.
Pycnonotus canifrons, *Gray, Hand-l. B.* i. p. 271, no. 3969.

*Adult.* General colour above dark olive-yellow, becoming yellower on the lower back, rump, and upper tail-coverts; tail-feathers dull olive-yellow, browner on the inner web, and having a broad terminal band of blackish brown; wing-coverts like the back; quills dark brown, externally olive-yellowish, the inner secondaries entirely of this colour; head strongly crested, the crown black, the nape slightly washed with grey; forehead ashy grey; ear-coverts light brown;

cheeks blackish, streaked with hoary grey, a shade of which appears on the sides of the neck, behind the ear-coverts; throat chocolate-brown, varied with hoary-grey tips to the chin-feathers; remainder of under surface of body light olive-greenish, becoming brighter yellow down the centre of the body and on the under tail-coverts; thighs like the flanks; under wing-coverts and axillaries very pale yellowish, brighter olive-yellow on the edge of the wing; quills dusky brown below, ashy along the inner webs of the primaries, yellowish along those of the secondaries. Total length 8 inches, culmen 0·65, wing 3·65, tail 3·7, tarsus 0·8.

The Finch-billed Bulbul is found only in Sylhet and the Khasia hills.

| | | |
|---|---|---|
| *a, b.* Ad. sk. | Khasia hills (*Griffith*). | India Museum. |
| *c.* Ad. sk. | [Khasia hills.] | J. Gould, Esq. |
| *d.* Ad. st. | Chera Pungi. | India Museum. |

### 2. Spizixus semitorques.

Spizixus semitorques, *Swinh. Ibis*, 1861, p. 266; *Gould, B. Asia*, pt. xviii.; *Swinh. P. Z. S.* 1871, p. 370; *David & Oustal. Ois. Chine*, p. 143, pl. 47.

Pycnonotus semitorques, *Gray, Hand-l. B.* i. p. 271, no. 3970.

*Adult.* General colour above dark olive-green, slightly yellower on the rump and upper tail-coverts; tail-feathers olive-yellow, brighter on the edges of the feathers, and having a broad band of blackish brown along the tip; wing-coverts like the back, the greater coverts yellower; quills dark brown, externally yellowish olive, the inner secondaries entirely of the latter colour, but duller; crown of head black, shading off into dark slaty grey on the nape and hind neck; lores white; sides of face black, the ear-coverts and hinder part of cheeks conspicuously black; throat blackish; on each side of the lower throat a patch of white, showing a tendency to unite across the latter, which is shaded with ashy brown; fore neck and breast olive-green, as also the sides of the body and thighs; the centre of the body and under tail-coverts bright yellow, the latter shaded with greenish; under wing-coverts and axillaries yellow, as also the edge of the wings; quills ashy brown below, yellowish along the inner web; "bill pale yellow; legs and claws pale liver-brown; iris brown" (*R. Swinhoe*). Total length 7·7 inches, culmen 0·6, wing 3·5, tail 3·6, tarsus 0·8.

Swinhoe's Finch-billed Bulbul replaces the foregoing species in the wooded hills of Eastern China.

| | | |
|---|---|---|
| *a.* Ad. sk. | Pih-ling hills, near Foochow. | R. Swinhoe, Esq. [C.]. |

### 3. Spizixus cinereicapillus.

Spizixus semitorques, *Swinh. Ibis*, 1863, p. 290 (*nec Swinh.* 1861).

Spizixus cinereicapillus, *Swinh. P. Z. S.* 1871, p. 370; *David & Oustalet, Ois. Chine*, p. 144.

*Adult.* General colour above uniform olive-green, slightly yellower on the rump and upper tail-coverts; tail yellowish olive, with a broad band of dark brown at the end; wing-coverts like the back, the quills dark brown, externally yellowish olive, the secondaries entirely of the latter colour; head and hind neck slaty blue, the latter slightly washed with the colour of the back; lores white; feathers round the eye and sides of head black, with streaks of dull white on the ear-coverts and cheeks; throat ashy black, with indistinct browner shaft-lines; on each side of the throat a white patch, nearly meeting across the latter; breast, sides of body, and thighs olive-greenish, the centre of the body yellow, deeper on the under tail-coverts; under wing-coverts and axillaries yellow; quills ashy brown below, yellow along the inner webs. Total length 7 inches, culmen 0·55, wing 3·4, tail 3·4, tarsus 0·8.

The Formosan Finch-billed Bulbul is strictly confined to the Chinese island of Formosa.

*a.* Ad. sk. Formosa. R. Swinhoe, Esq. [C.].

## 27. IRENA.

Type.

Irena, *Horsf. Tr. Linn. Soc.* xiii. p. 153..... I. turcosa.

Head of *Irena cinniger*, to show nuchal hairs.

*Range.* Indian peninsula, Indo-Chinese countries, Malayan peninsula; Java; Sumatra; Borneo; Philippine Islands.

This genus was fully described by me in the present work (vol. iii. pp. 265–269), where it will be found placed at the end of the family Dicruridæ. Its position was challenged by the late Marquis of Tweeddale in his critique on my third volume ('Ibis,' 1878, pp. 82, 83); and he very properly points out an error of mine, in uniting a genus like *Irena*, which has twelve tail-feathers, with the family of Drongos, one of whose special characteristics is the possession of only ten rectrices. I consider, therefore, that if *Irena* is not to be put with the Dicruridæ, it must be placed with the Bulbuls, as Blyth and Jerdon have already done. The nuchal bristles, the existence of which I believe I was the first to point out, likewise seem to ally the Bluebirds with the rest of the Brachypodinæ; but at the same time their nostrils are covered with dense plumes, as in the Drongos.

The descriptions of the species are reproduced from the third volume of this Catalogue, and the specimens added to the collection since 1877 are incorporated.

*Key to the Species.*

*a*. Underneath deep purplish blue.
  *a'*. Mantle deep purplish blue ..... *cyanogastra*, p. 175.
  *b'*. Mantle velvety black..... *melanochlamys*, p. 176.
*b*. Underneath black.
  *c'*. Under tail-coverts reaching to the tip, or even beyond the tip of the tail ..... *turcosa*, p. 176. / *crinigera*, p. 176.
  *d'*. Under tail-coverts not reaching to the tip of the tail.
    *a''*. Under tail-coverts falling short of the tip of the tail by more than length of tarsus.
      *a'''*. Enamelled blue feathers of a deep purplish shade ..... *puella*, p. 177.
      *b'''*. Enamelled blue feathers of a dull verditer..... *tweeddalii*, p. 178.
    *b''*. Under tail-coverts reaching nearly to the tip of the tail, not falling short of it by as much as the length of the tarsus .... *cyanea*, p. 179.

## 1. Irena cyanogastra.

Irena cyanogastra, *Vigors, P. Z. S.* 1831, p. 97; *Gray & Mitch. Gen. B.* i. p. 288, pl. 70; *Bp. Consp.* i. p. 349; *Cass. U.S. Expl. Exp.*, Aves, p. 143; *Gray, Hand-l. B.* i p. 288; *Walden, Tr. Z. S.* ix. p. 190; *Sharpe, Cat. B.* iii. p. 267; *id. Tr. Linn. Soc. new series, Zool.* i. p. 352; *Gould, B. Asia*, part xxxii.

*Adult male.* General colour above deep purplish blue, slightly varied on the rump with ashy brown, where the bases of the feathers show through: the scapulars resembling the back; least and median wing-coverts deep cobalt-blue, the greater series black, shading off into deep cobalt at the tip, very slightly on the outermost, very broadly on the inner ones; primary-coverts black; the quills black, the inner secondaries externally deep cobalt like the wing-coverts, the greater upper tail-coverts deep cobalt, brighter than the lower back; tail black, washed with deep purple, more plainly on the centre feathers; crown of head and nape deep cobalt-blue, a little brighter on the fore part of the crown; lores, sides of face and of neck, entire throat, and chest black; rest of under surface deep purplish blue, like the back; under tail-coverts deep cobalt-blue; thighs and under wing-coverts brown, washed with purplish blue; iris red. Total length 10 inches, culmen 1·15, wing 5·35, tail 4·4, tarsus 0·85.

Sexes alike (*Meyer*; *cf. Walden*, *l. c.*).

The Blue-bellied Fairy Blue-bird appears to be confined to the island of Luzon in the Philippine Archipelago.

| | | |
|---|---|---|
| *a*, *b*. Ad. st. | Manila, Luzon. | Hugh Cuming, Esq. [C.]. |
| *c*, *d*. Ad. sk. | Manila. | Gould Collection (spec. fig. B. Asia, *l. c.*). |

### 2. Irena melanochlamys.

Irena melanochlamys, *Sharpe, Cat. B.* iii. p. 266; *id. Trans. Linn. Soc. new series,* i. pp. 334, 352; *Tweedd. P. Z. S.* 1879, p. 71.

*Adult male* (type of species). Crown of head and nape glistening purplish cobalt, extending to the middle of the hind neck; sides of neck, mantle, and scapulars deep velvety black; lower back and rump dull purplish cobalt, much brighter on the upper tail-coverts; wings black, the lesser and median series purplish cobalt, the greater series black, tipped with the same cobalt, the innermost, as well as the inner, secondaries externally of the same colour; tail black, shaded with purple on the centre feathers and the outer webs of the others; lores, feathers above and round the eye, throat, and fore neck deep velvety black, the rest of the under surface dull purple, the under tail-coverts bright purplish cobalt; under wing-coverts dull purple; "bill black; legs black; iris carmine" (*Steere*); iris pure Indian red (*Everett*). Total length 10 inches, culmen 1·05, wing 4·8, tail 4·1, tarsus 0·7. (*Coll. J. B. Steere.*)

The Black-mantled Fairy Bluebird is apparently confined to the island of Basilan, in the Philippine Archipelago.

| | | | |
|---|---|---|---|
| *a.* ♀ ad. sk. | Basilan, May 1878. | A. Everett, Esq. [C.]. |

### 3. Irena turcosa.

Irena puella, *Horsf. in Linn. Trans.* xiii. p. 153; *id. Zool. Research. in Java, Birds,* pls. 13, 14; *Steph. Gen. Zool.* xiii. pt. 2, p. 142, pl. 48; *Gray, Gen. B.* i. p. 288; *Cab. Mus. Hein.* Th. i. p. 110.
Edolius puellus, *Temm. Pl. Col.* pls. 70, 476, 225.
Irena turcosa, *Walden, Ann. N. H.* (4) v. p. 417; *Sharpe, Ibis,* 1876, p. 44; *id. Cat. B* iii. p. 267; *Nichols. Ibis,* 1881, p. 147.

*Adult male.* General arrangement of colour as in *I. puella*; but the blue is of a turquoise shade, inclining to silvery cobalt on the head; under tail-coverts reaching a little beyond the tip of the tail; "iris dark red" (*H. O. Forbes*). Total length 8·5 inches, culmen 1·1, wing 4·95, tail 3·6, tarsus 0·8.

The Turquoise Fairy Bluebird is only known from the island of Java.

| | | |
|---|---|---|
| *a.* Ad. st. | [Java (*Horsfield*).] | India Museum. |
| *b.* Juv. sk. | Java (*Horsfield*). | India Museum. |
| *c.* ♂ ad. sk. | Java (*Horsfield*). | India Museum. |

### 4. Irena crinigera.

Coracias puella, *Raffl. Tr. Linn. Soc.* xiii. p 302 (*nec Lath.*).
Irena puella (*nec Lath.*), *Motley & Dillw. N. Hist. Labuan,* p. 23; *Sel. P. Z. S.* 1863, p. 217.
Irena cyanea, *Salvad. Ucc. Born.* p. 151 (*nec Begbie*).
Irena turcosa, *Sharpe, Ibis,* 1876, p. 44 (*nec Wald.*).
Irena criniger, *Sharpe, Cat. B.* iii. p. 267; *id. P. Z. S.* 1879, p. 338; *id. Ibis.* 1879, p. 257; *Gould, B. Asia,* part xxxii.

*Adult male.* Blue and black, as in *I. puella,* the distribution of

colours being the same; the hue of the blue colour intense cobalt, very rich on the head; the under tail-coverts produced to the very end of the tail, the upper coverts also nearly as far; bill and legs black; iris red. Total length 9·3 inches, culmen 0·95, wing 4·6, tail 3·25, tarsus 0·65.

*Adult female.* Differs from the male exactly as does the female of *I. puella* from the male.

*Obs.* Sumatran birds seem to be exactly the same as the Bornean, a pair from Mr. Wallace's collection measuring as follows:—

| | | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|---|
| *a.* ♂ ad. | Sumatra.... | 9·3 | 1 | 4·65 | 3·55 | 0·55 |
| *b.* ♀ ad. | Sumatra.... | 9·0 | 1 | 4·5 | 3·25 | 0·7 |

Everett's Fairy Bluebird is an inhabitant of the islands of Borneo and Sumatra.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Borneo. | Rajah Brooke [P]. |
| *b.* [♂] ad. sk. | Banjermassing. | J. Motley, Esq. [C.]. |
| *c.* ♂ ad. sk. | Jambusan, Sept. 11, 1874. | Alfred Everett, Esq. [C.]. |
| *d.* ♂ ad. sk. | Sibu, Sarawak. | Alfred Everett, Esq. [C.]. |
| *e, f.* ♂ ♀ ad. sk. | Busan, Sarawak (*A. Everett*). | Gould Collection. |
| *g.* ♂ ad. sk. | Sarawak, Dec. 1878. | H. Everett, Esq. [C.]. |
| *h.* ♂ ad. sk. | Labuan. | Hugh Low, Esq. [C.]. |
| *i, k.* ♂ ♀ ad. sk. | Sumatra. | A. R. Wallace, Esq. [C.]. |
| *l.* [♀] ad. sk. | Sumatra. | Purchased. |
| *m.* ♀ ad. sk. | Sumatra (*Raffles*). | India Museum. |

### 5. Irena puella.

Fairy Roller, *Lath. Gen. Syn. Suppl.* p. 87.
Coracias puella, *Lath. Ind. Orn.* i. p. 171; *Daud. Traité*, ii. p. 264.
Irena puella, *Jerd. Madr. Journ.* xiii. p. 262; *M'Clell. P. Z. S.* 1839, p. 160; *Gray, Gen. B.* i. p. 288, pl. 70. fig. 3; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* p. 273; *Jerd. B. Ind.* ii. p. 105; *Gray, Hand-l. B.* i. p. 288; *Stoliczka, J. A. S. Beng.* xxxix. pt. 2, p. 318; *Wald. Ibis*, 1871, p. 170; *Holdsw. P. Z. S.* 1872, p. 452; *Wald. Ibis*, 1873, p. 306; *Armstr. Str. F.* 1876, p. 326; *Sharpe, Cat. B.* iii. p. 268; *Fairb. Str. F.* 1877, p. 406; *Hume & Davis. Str. F.* 1878, pp. 328, 516; *Legge, B. Ceylon*, p. 466; *Hume, Str. F.* 1879, p. 99; *Gould, B. Asia*, part xxxiii.
Irena indica, *A. Hay in Blyth's Report, J. A. S. Beng.* xv. p. 309; *Bp. Consp.* i. p. 349.

*Adult male.* General colour above deep purplish cobalt, of a purer blue shade somewhat on the forehead; scapulars as well as the least and median coverts coloured exactly like the back, the greater series blackish, with a cobalt-blue spot at the tips of some of them; quills and tail black, with a slight bluish shade on the secondaries and central tail-feathers; lores, feathers over the eye, sides of face, sides of neck, and entire under surface, including the thighs and under wing-coverts, black; under tail-coverts deep-purplish cobalt;

bill and legs black; iris ruby-red. Total length 10 inches, culmen 0·95, wing 5, tail 4·45, tarsus 0·75, distance between tip of tail-coverts and tip of tail 1·6.

*Adult female.* Different in colour from the male, being of a dull Prussian blue, a little brighter and inclining to cobalt on the rump and upper and under tail-coverts; wings and tail dark brown, the quills narrowly edged, and the secondaries and tail-feathers washed with dull blue, the latter more conspicuously.

The Fairy Bluebird inhabits the high forests on the hills of Southern India, and is found occasionally in Ceylon. Re-occurring in Sikhim, it extends throughout the Burmese provinces to Tenasserim, and eastwards to Siam and Cochin China.

| | | |
|---|---|---|
| *a, b.* ♂ ad. sk. | Travancore. | Major Biddulph [C.]. |
| *c, d.* ♂ imm. sk. | Eridge, Travancore, April 1878. | F. W. Bourdillon, Esq. [C.]. |
| *e.* ♂ ad. sk. | Mynall, Travancore, July 1878. | F. W. Bourdillon, Esq. [C.]. |
| *f.* ♂ ad. sk. | Mynall, Travancore, Oct. 1878. | F. W. Bourdillon, Esq. [C.]. |
| *g, h.* ♂ ♀ ad. sk. | Mynall, Travancore, Nov. 1878. | F. W. Bourdillon, Esq. [C.]. |
| *i, k.* ♂, *l.* ♀ ad. sk. | Mynall, Travancore, Dec. 1878. | F. W. Bourdillon, Esq. [C.]. |
| *m.* ♂ ad. sk. | Moalmaza. | |
| *n.* ♂ ad. sk. | Madras (*Wight*). | India Museum. |
| *o.* ♂ ad. sk. | Yurralee, Sept. 23, 1867. | Gould Collection. |
| *p.* ♀ ad. sk. | Kullar, Oct. 6, 1867. | Gould Collection. |
| *q.* ♀ ad. sk. | Assam (*M'Clelland*). | India Museum. |
| *r.* ♂ ad. sk. | Siam. | M. Mouhot [C.]. |
| *s.* ♂ ad. sk. | Siam (*Mouhot*). | Gould Collection. |
| *t, u.* ♀ ad. sk. | Saigon, Cochin China. | M. E. Pierre [P.]. |
| *v, w.* ♂ ad. sk. | Tenasserim. | J. C. D. Packman, Esq. [P.]. |

### 6. Irena tweeddalii.

Irena tweeddalii, *Sharpe, Cat. B.* iii. p. 268; *id. Trans. Linn. Soc. new series.* i. pp. 333, 352; *Wardlaw-Ramsay, Orn. Memoirs of Marquis of Tweeddale,* p. 657 (1881).

*Adult male* (type of species). Crown of head, nape, and hind neck, as well as the entire back, scapulars, rump, and upper tail-coverts brilliant turquoise-blue, the head more silvery; lesser and median wing-coverts turquoise-blue, like the back; rest of the wing-coverts black, some of the innermost of the greater series with a blue spot at the tips; quills and tail black; lores, feathers in front of and over the eye, sides of face, sides of neck, and entire under surface of body, from chin to vent, rich velvety black, including the under wing-coverts; under tail-coverts bright turquoise-blue, a little more purplish than the upper surface; bill and legs black. Total length 8 inches, culmen 1·05, wing 4·85, tail 3·85, tarsus 0·7. (*Coll. J. B. Steere.*)

*Adult female.* General colour above and below dull verditer-blue, brighter and more washed with cobalt on the rump and upper tail-

coverts; least and median wing-coverts exactly resembling the back, the greater series, quills, and tail blackish brown, externally washed with blue; bill and legs black; "iris carmine" (*Steere*). Total length 9·5 inches, culmen 1·05, wing 4·85, tail 3·8, tarsus 0·75. (*Coll. J. B. Steere.*)

Lord Tweeddale's Fairy Bluebird occurs only in the island of Balabac in the Philippine Archipelago.

### 7. Irena cyanea.

Irena puella, *Blyth, J. A. S. B.* xv. p. 308 (*nec Lath.*); *id. Cat. B. Mus. A. S. B.* p. 214 (pt.); *Bp. Consp.* i. p. 349.

Irena cyanea, *Beybie, Malayan Penins.* p. 516; *Wald. Ibis*, 1871, p. 171; *Sharpe, Ibis*, 1876, p. 44; *id. Cat. B.* iii. p. 269; *Hume, Str. F.* 1879, p. 63.

Irena malayensis, *Moore, in Horsf. & Moore, Cat. B.* i. p. 274; *Jerd. B. Ind.* ii. p. 106; *Gray, Hand-l. B.* i. p. 288; *Wald. Ibis*, 1871, p. 171.

Irena puella, var. cyanea. *Stoliczka, J. A. S. B.* xxxix. p. 318 (1870).

*Adult male.* Similar to *I. cyaniger* in distribution of colour and shade of blue, but having the under tail-coverts falling short of the tip of the tail by half an inch. Total length 9·3 inches, culmen 1, wing 4·6, tail 3·5, tarsus 0·7.

*Adult female.* Similar to the female of *I. cyaniger*. Total length 8·5 inches, wing 4·6, tail 3·7, tarsus 0·7.

The Malayan Fairy Bluebird occurs in the Malayan Peninsula.

| | | |
|---|---|---|
| *a.* Imm. st. | Malacca. | Hugh Cuming, Esq. [C.]. |
| *b, c.* [♂ ♀] ad. sk | Malacca. | |
| *d.* [♀] ad. sk. | Malacca. | W. Harvey, Esq. [C.]. |
| *e.* ♂ ad. sk. | Malacca. | A. R. Wallace, Esq. [C.]. |
| *f, g.* ♂ ♀ ad. sk. | Penang (*Cantor*). | India Museum. |
| *h.* ♂ imm. sk. | Penang (*Cantor*). | India Museum. |
| *i.* ♀ ad. sk. | Malacca (*Wallace*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *k, l.* ♂ ♀ ad. sk. | Malacca (*Wallace*). | Gould Collection. |

## Subfamily II. TROGLODYTINÆ.

In their habits and in their form the Wrens are essentially Timeliine. They possess the strong, even clumsy, legs and concave rounded wings which distinguish this group of birds, and they do not migrate, as a rule. The nests are generally domed, and hence one of the reasons for retaining the Dippers in the family. The principal characteristic, however, of a Wren, and one that separates them from the true Timeliine birds, is the almost entire absence of rictal bristles. In all the true *Timeliinæ*, and even in the Bulbuls, these bristles are very strongly developed; and for ornithologists who doubt that *Cinclus* is a Wren, an examination of the bill alone will be sufficient to show that its place is with the *Troglodytinæ*.

*Key to the Genera.*

*a*. Tail long, exceeding the length of the wing by about as much as the hind toe ..... 28. CINNICERTHIA, [p. 182.

*b*. Tail moderate; the wing equal to the tail, or exceeding it slightly, but never by more than the length of the culmen.

*a'*. Wing and tail about equal; first primary large, nearly two thirds the length of the entire wing; tarsal envelope with distinct scutes; nasal aperture longitudinal and shut in by a very evident superior membrane ..... 29. CAMPYLORHYNCHUS, [p. 184.

*b'*. Wing a little longer than the tail.

*c''*. Tarsus longer than the culmen.

*a'''*. Tail rather longer, more than one third the entire length of the bird.

*a*⁴. Bill with a small, but perceptible, subterminal notch.

*a*⁵. Nostril oval and open, situated in the anterior portion of the nasal fossa ..... 30. THRYOPHILUS, [p. 204.

*b*⁵. Nostrils long ovals, overhung by a thickened membrane, leaving the opening small and longitudinal ..... 31. THRYOTHORUS, [p. 218.

*b*⁴. Bill not notched.

*c*⁵. Middle toe and claw about equal to hind toe and claw; outer toe about equal to inner toe.

*a*⁶. Hind claw very large, nearly equal to hind toe itself.... 32. CISTOTHORUS, p. 240.

*b*⁶. Hind claw small, not nearly equal to hind toe.

*a*⁷. Culmen long and thin, exceeding the hind toe and claw in length ..... 33. TROGLODYTES, [p. 247.

*b*⁷. Culmen shorter and more conical, not so long as hind toe and claw.

$a^3$. Nostril linear, and shut in by an overhanging membrane; culmen rather longer ..... 34. Urocichla, p. 263.

$b^3$. Nostril also somewhat linear, and having an oval opening behind, shut in by a thickened membrane ..... 35. Spelæornis, p. 264.

$d^3$. Middle toe and claw longer than hind toe and claw; outer toe longer than inner one.... 36. Salpinctes, p. 266.

$b'''$. Tail shorter, one third of the entire length of the bird; nasal aperture a narrow longitudinal slit, entirely shut in by a membrane ..... 37. Anorthura, p. 268.

$d''$. Culmen longer than the tarsus..... 38. Catherpes, p. 280.

*c*. Tail quite long, exceeding the wing by more than the length of the tarsus; bill conical and pointed, the culmen and gonys both perfectly straight; the nostril a narrow slit shut in completely by a horny membrane which overhangs the anterior edge of it..... 39. Sphenocichla, [p. 283.

*d*. Tail short, the wing exceeding it by more than the length of the hind toe and claw.

$e''$. Tarsi scutellated in front.

$c'''$. Bill moderately long, but much shorter than the tarsus.

$c^4$. Bill only moderately compressed, as broad as it is high at the nostrils.

$e^5$. Nostrils overhung by a membrane ..... 40. Uropsila, p. 284.

$f^5$. Nostrils round and open, situated in the anterior part of the nasal fossa ..... 41. Henicorhina, [p. 285.

$d^4$. Bill high and compressed, much higher than it is broad at the nostrils; the latter small and circular, situated in the middle of the nasal membrane..... 42. Cyphorhinus, [p. 289.

$d'''$. Bill very long, about equal to the tarsus in length, and about equal in height and breadth at nostrils; the latter comma-shaped, the tail of the comma pointing forwards, slightly overhung by a membrane ..... 43. Microcerculus, [p. 295.

$f''$. Tarsi plain in front.

$e'''$. Tail invisible, completely hidden by the tail-coverts and feathers of the rump ..... 44. Pnoepyga, p. 301.

$f'''$. Tail visible, not hidden by the tail-coverts..... 45. Cinclus, p. 306.

## 28. CINNICERTHIA.

Type.
Cinnicerthia, *Lesson, Descr. Mamm. et Ois.* p. 286 (1847) C. unirufa.
Presbys, *Cab. Mus. Hein.* Th. i. p. 80 (1850) ..... C. unirufa.
Thelydrias, *Reichenb. Syst. Av.* (1853, *teste Gray*).

Head of *Cinnicerthia unirufa*.

*Range.* Confined to South America.

*Key to the Species.*

*a*. Quills almost uniform below, not distinctly barred.
  *a'*. General colour light chestnut or bay; the flanks of the same bay-colour as the back ... ..... *unirufa*, p. 182.
  *b'*. General colour rufous-brown above; lower flanks and thighs dusky brown, more dingy than the upper surface..... *unibrunnea*, p. 183.
*b*. Quills distinctly barred below on both webs; head, neck, and underparts olive-brown .. *olivascens*, p. 184.

### 1. Cinnicerthia unirufa.

Limnornis unirufus, *Lafr. Rev. Zool.* 1840, p. 105; *Gray, Gen. B.* i. p. 134; *Bp. Consp.* i. p. 215.
Limnornis canifrons, *Lafr. Rev. Zool.* 1840, p. 105; *Gray, Gen. B.* i. p. 134; *Bp. Consp.* i. p. 215.
Cinnicerthia unicolor, *Less. Descr. Mamm. et Ois.* p. 286 (1847).
Limnornis cinnamomea, *Bp. Consp.* i. p. 215.
Presbys canifrons, *Cab. Mus. Hein.* Th. i. p. 80.
Cinnicerthia unirufa, *Scl. P. Z. S.* 1855, p. 143; *id. Cat. Amer. B.* p. 18; *Scl. & Salv. Nomencl. Av. Neotr.* p. 6.
Cyphorhinus unirufus, *Gray, Hand-l. B.* i. p. 194, no. 2676.
Cyphorhinus canifrons, *Gray, tom. cit.* p. 194, no. 2677.

*Adult.* General colour above light rufous or bay, paler on the hind neck, and deepening towards the lower back and rump; forehead hoary grey, paling off on the nape; wing-coverts rather darker rufous than the back, as also the external aspect of the quills, which are dusky brown on the inner webs, with a few indistinct dusky bars towards the tips of the outer webs of the primaries and on both webs of the secondaries; tail-feathers bay, with faint indications of dusky cross bars; lores and feathers in front of the eye blackish; ear-coverts very pale rufous; fore part of cheeks and chin

dull hoary white, with a dusky spot at the angle of the latter; throat and under surface of body light rufous, deepening into bay on the flanks and abdomen, becoming almost chestnut on the under tail-coverts; under wing-coverts and axillaries like the breast; quills dusky brown below, rufous along the inner web. Total length 7·2 inches, culmen 0·75, wing 3·05, tail 3·4, tarsus 1·1.

*Adult female* (?). Like the male, but wanting the hoary-grey forehead and chin, and the general colour rather deeper rufous. Total length 6·7 inches, culmen 0·75, wing 2·9, tail 3, tarsus 1.

The Bay Wren inhabits New Granada, whence it ranges into Ecuador.

| | | |
|---|---|---|
| *a*. [♂] ad. sk. | Bogotá. | Purchased. |
| *b*. [♀] ad. sk. | Quito (*Jameson*). | J. Gould, Esq. |
| *c*. Ad. sk. | South America. | |
| *d*. Ad. sk. | Bogotá (*Purdie*). | Director, Royal Gardens, Kew [P.]. |

### 2. Cinnicerthia unibrunnea.

Limnornis unibrunneus, *Lafr. Rev. Zool.* 1853, p. 59.

Cinnicerthia unibrunnea, *Sclater, P. Z. S.* 1858, p. 550; *id. P. Z. S.* 1860, p. 74; *id. Cat. Amer. B.* p. 18; *Scl. & Salv. Nomencl. Av. Neotr.* p. 6.

Cyphorhinus unibrunneus, *Gray, Hand-l. B.* i. p. 194, no. 2678.

*Adult.* General colour above dull rufescent brown, slightly more chestnut on the lower back, rump, and upper tail-coverts; lesser and median wing-coverts like the back, the greater coverts and quills externally rufous, narrowly barred with dusky brown cross lines, the inner webs of the latter dusky brown, the cross barring confined to the outer web of most of the quills, excepting the innermost secondaries, which are rufous-brown and are barred right across; tail-feathers rufous, with numerous cross bars of dusky brown, over thirty in number; lores black; ear-coverts, sides of face, throat, and chest dull rufescent brown, like the head, shading off into dull umber-brown on the flanks and abdomen, somewhat washed with rufous-brown; under tail-coverts chestnut; thighs dark sepia-brown: under wing-coverts and axillaries like the breast; quills dark brown below, rufescent along the edge of the inner web. Total length 6·2 inches, culmen 0·75, wing 2·8, tail 3, tarsus 1·05.

Another example in the British Museum, said to be from Bogotá, is probably the *adult male*, as it has a white forehead and the chin-angle also white.

The *young* is described by Professor Baird as differing from the adult in having the anterior part of the body brown, instead of reddish, and the basal portion of the gape and lower jaw yellowish, instead of black. A specimen which I take to be immature differs from the adult in wanting the cross bars on the wings, and having those on the tail less distinct, but more especially in having the head dull ashy brown, until the whole tinge of the plumage is duller than in the adult.

The Reddish-brown Wren is an inhabitant of Ecuador, whence it extends into New Granada.

| | | |
|---|---|---|
| *a*. Ad. sk. | Ecuador. | J. Gould, Esq. |
| *b*. Juv. sk. | Quito. | J. Gould, Esq. |
| *c*. Ad. sk. | Matos, Ecuador (*L. Fraser*). | Eyton Collection. |
| *d*, *e*. Ad. sk. | Bogotá. | Purchased. |

### 3. Cinnicerthia olivascens. (Plate XI.)

Cinnicerthia unibrunnea, *Sel. & Salv. P. Z. S.* 1879, pp. 492, 549 (*nec Lafr.*).

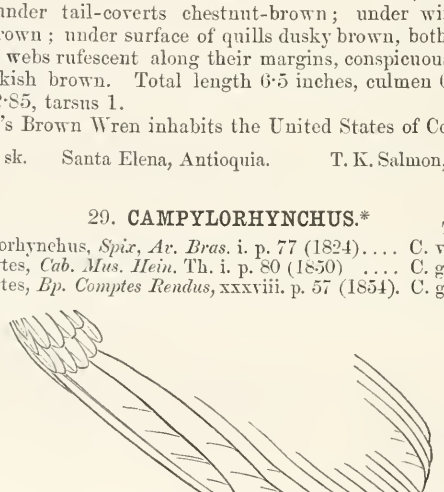
*Adult.* General colour above dull olive-brown on the head, the back slightly more rufescent brown, with more or less distinct cross bars of dusky brown; lesser and median wing-coverts like the back; greater coverts and quills rufous-brown, distinctly barred across with blackish on the outer webs of all except the innermost secondaries, which are barred across both webs, the rest of the quills dusky brown on their inner webs; tail chestnut, barred across with blackish brown, about thirty-two bars being perceptible; base of forehead white; lores dusky blackish; sides of face and ear-coverts olive-brown, shading off paler on the sides of the neck; throat whity brown; breast olive-brown, shading off into clearer and more rufescent brown on the abdomen, flanks, and thighs; under tail-coverts chestnut-brown; under wing-coverts reddish brown; under surface of quills dusky brown, both the inner and outer webs rufescent along their margins, conspicuously barred with blackish brown. Total length 6·5 inches, culmen 0·75, wing 2·7, tail 2·85, tarsus 1.

Salmon's Brown Wren inhabits the United States of Colombia.

| | | |
|---|---|---|
| *a*, *b*. ♀ ad. sk. | Santa Elena, Antioquia. | T. K. Salmon, Esq. [C.]. |

### 29. CAMPYLORHYNCHUS.*

| | Type. |
|---|---|
| Campylorhynchus, *Spix, Av. Bras.* i. p. 77 (1824).... | C. variegatus. |
| Heleodytes, *Cab. Mus. Hein.* Th. i. p. 80 (1850) .... | C. griseus. |
| Buglodytes, *Bp. Comptes Rendus,* xxxviii. p. 57 (1854). | C. griseus. |



Wing of *Campylorhynchus variegatus*, to show proportions of primaries.

* Von Pelzeln has described a genus of Wrens from Brazil as *Odontorhynchus* (Orn. Bras. p. 67). Not having seen the bird I have not been able to place it in

*Range.* From the southern border of the United States and Lower California, throughout Central America and South America, as far as Brazil and Bolivia.

*Key to the Species.*

*a*. Centre tail-feathers without pale cross bars; back not barred or streaked with white.
  *a'*. Outer tail-feathers with a broad band of white across them; back and rump rufous-brown; head and mantle black, with a broad white eyebrow; under surface white.
    *a''*. Quills edged with rufous.
      *a'''*. Mantle-feathers edged with rufous .. *griseus*, p. 186.
      *b'''*. Mantle uniform ..... *minor*, p. 187.
    *b''*. Quills uniform dull brown externally, like the back ..... *bicolor*, p. 187.
  *b'*. With no white bands on any of the tail-feathers.
    *c''*. Under surface white, unspotted; head white all round; back, wings, and tail brown ..... *albibrunneus*, p. 188.
    *d''*. Under surface uniform pale fulvous-brown, the under tail-coverts spotted with black ..... *unicolor*, p. 190.
    *e''*. Under surface spotted; upper surface nearly uniform, the feathers edged with ashy.
      *c'''*. Throat white, not spotted ..... *variegatus*, p. 188.
      *d'''*. Throat spotted with blackish..... *hypostictus*, p. 189.
*b*. Centre tail-feathers with light cross bars; back uniform chestnut: head black ..... *capistratus* ad., p. 191.
*c*. Centre tail-feathers with light cross markings or bars; back streaked or barred with white.
  *f''*. Chin and throat uniform, not spotted with black.
    *e'''*. Under surface uniform, not spotted or barred with black.
      $a^4$. Head black; back chestnut, streaked and spotted with white; hind neck uniform chestnut..... *capistratus* juv., p. 191.
      $b^4$. Head dark chestnut, as well as the hind neck ..... *humilis*, p. 192.
  *f'''*. Under surface spotted with black.
    $c^4$. Head blackish brown, slightly mottled with ashy-brown margins to the feathers; above the ear-coverts a streak of black ..... *jocosus*, p. 193.
    $d^4$. Head chestnut-brown, quite uniform; above the ear-coverts a streak of chestnut ..... *gularis*, p. 194.

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the present volume, but it is said to be closely allied to *Campylorhynchus*. A translation of the original description of *O. cinereus*, Pelz., is in the Appendix (*vide infrà*).

$g''$. Chin and throat spotted.
$g'''$. Flanks spotted, as well as the under tail-coverts, with black.
$e^4$. Back barred with white: flanks, abdomen, and under tail-coverts bright chestnut ..... *zonatus*, p. 195.
$f^4$. Back streaked or spotted with white; flanks fulvous or buffy white.
$a^5$. Head dark brown; back spotted with white ..... *coucsi*, p. 196.
$b^5$. Head rufous; back longitudinally streaked with white ..... *brunneicapillus*, p. 197.
$h'''$. Flanks barred with dusky blackish.
$g^4$. Mantle barred with blackish and white; the hind neck streaked with black and white.
$c^5$. Under tail-coverts spotted with black; flanks and under tail-coverts rufous-buff ..... *brevirostris*, p. 198.
$d^5$. Under tail-coverts barred with black.
$a^6$. Bill smaller: culmen not exceeding 0·85 inch.
$a^7$. General colour browner, especially the head..... *megalopterus*, p. 199.
$b^7$. General colour very light ashy grey, the head especially .. *balteatus*, p. 200.
$b^6$. Bill much larger; culmen 1·15–1·2 inch..... *fasciatus*, p. 201.
$h^4$. Mantle streaked with white, as well as the hind neck.
$e^5$. Head brown; tail brown, with blackish mottlings on the edge of the centre feathers; bill 1·15 inch long ..... *guttatus*, p. 202.
$f^5$. Head ashy; nape rufescent; tail-feathers black, notched with white on either web ..... *nuchalis*, p. 203.
$h''$. Throat white; fore neck spotted with black; head not uniform, grey streaked with black; ear-coverts white, with a narrow line of black along the upper edge ..... *pardus*, p. 204.

### 1. Campylorhynchus griseus.

Furnarius griseus, *Swains. An. in Menag.* p. 16; *Gray, Gen. B.* i. p. 132.
Campylorhynchus griseus, *Cab. in Schomb. Reis. Guian.* iii. p. 674; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5.
Heleodytes griseus, *Cab. Mus. Hein.* Th. i. p. 80; *Sclater, P. Z. S.* 1856, p. 97; *id. Cat. Amer. B.* p. 16; *Scl. & Salv. P. Z. S.* 1870, p. 783; *Pelz. Orn. Bras.* pp. 48, 414; *Wyatt, Ibis*, 1871, p. 321.
Buglodytes albicilius, *Bp. Compt. Rend.* xxxviii. p. 57.
Donacobius griseus, *Gray, Hand-l. B.* i. p. 192, no. 2631.

*Adult.* Head, neck, and mantle black, the feathers of the latter margined with rufous-brown, resembling the back, which is rufous-

brown; under tail-coverts rufous-brown, with fulvous notches on the outer web of the external ones; least wing-coverts blackish brown; remainder of the coverts and quills deep brown, externally rufous-brown, duller on the primaries; tail-feathers dark brown, edged with rufous-brown towards the base of the feathers, all but the centre tail-feathers with a broad subterminal band of white, enlarging towards the outermost feather; a broad white eyebrow, extending from the base of the bill to the side of the nape; lores, hinder margin of eyelid, and a broad band along the upper margin of the ear-coverts blackish brown; eyelid, sides of face, cheeks, ear-coverts, and entire under surface of body white, the sides of the body and under tail-coverts pale ochreous buff; under wing-coverts and axillaries white; quills ashy brown below, rufescent along the edge of the inner web; "iris brown or yellow" (*A. Goering*); "iris white" (*C. W. Wyatt*). Total length 8·8 inches, culmen 1·2, wing 3·6, tail 3·5, tarsus 1·25.

A specimen in Messrs. Salvin and Godman's collection has a few spots of brown on the flanks, and is probably a younger bird.

The Large Cactus-Wren is an inhabitant of Colombia.

*a*. Ad. sk. New Granada. Purchased.

### 2. Campylorhynchus minor.

Heleodytes minor, *Cab. Mus. Hein.* Th. i. p. 80; *Scl. Cat. Amer. B.* p. 16; *Finsch, P. Z. S.* 1870, p. 563.
Donacobius minor, *Gray, Hand-l. B.* i. p. 192, no. 2633.

*Adult* (Trinidad). General colour above rufous, the wing-coverts like the back; primary-coverts dull rufous, with a few obsolete dusky bars; quills dark brown, externally rufous like the back, with an appearance of dusky bars on the outer web, the primaries having the appearance of being barred with pale fulvous; tail-feathers brown, barred with blackish, about sixteen bars being discernible on the centre feathers, the remainder of the feathers blackish, externally brown, barred with dusky and tipped with white, the white ending increasing towards the outer feathers, which have dusky bars on the outer web; head blackish brown; over the eye a broad streak of white; sides of face also white, the upper part of the ear-coverts blackish, forming a broad streak; under surface of body white, fulvescent on the flanks and under tail-coverts; under wing-coverts and axillaries white; quills dusky brown below, light rufous along the edge of the inner web. Total length 6·7 inches, wing 3·05, tail 3, tarsus 1·05. (*Mus. P. L. Sclater.*)

The Lesser Cactus-Wren inhabits Venezuela and Trinidad, but does not seem to be very distinct as a species from the foregoing one.

### 3. Campylorhynchus bicolor.

? Heleodytes griseus, *Baird, Rev. Amer. B.* p. 96 (*nec Swains.*).
Heleodytes bicolor, *Pelz. Ibis*, 1875, p. 330.

General colour above and the wings externally dull brown; fore-

head and tips of the feathers of the rump slightly rufescent; a superciliary streak drawn from the nostrils to the nape; whole of the belly and lower wing-coverts white; tail-feathers obscure brown, the two middle ones uniform, the rest with a white subterminal band, decreasing in breadth from the outer rectrix to the middle ones, not reaching the margin of the outer web in the fourth feather on each side (that one next to the middle ones); bill black, pale below; feet horn-coloured. Total length $7\frac{1}{2}''$, wing $3''\ 11'''$, tail $4''$, bill from front $11\frac{1}{2}'''$, from gape $15\frac{1}{2}'''$, tarsus $15'''$: the white band on the outermost feather $1''$, on the fourth $7'''$, on the fifth $3'''$–$6\frac{1}{2}'''$ broad. (*Pelzeln.*)

Pelzeln's Cactus-Wren is stated to be from Spanish Guiana. It was only known from the description given by Herr von Pelzeln (*l.c.*), who remarks that it is similar to *H. griseus*, but is larger, the upper surface and the wings externally being uniform dull brown. A specimen of Schomburgk's seems, however, to belong to this species, which must therefore also inhabit British Guiana.

*a.* Ad. sk. British Guiana. Baron Schomburgk [C.].

### 4. Campylorhynchus albibrunneus.

Heleodytes albobrunneus, *Lawr. Ibis*, 1862, p. 10; *id. Ann. Lyc. New York*, vii. p. 470; *Scl. & Salv. P. Z. S.* 1864, p. 344.
Campylorhynchus albibrunneus, *Baird, Review Amer. B.* p. 98; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 63.
Donacobius albobrunneus, *Gray, Hand-l. B.* i. p. 193, no. 2632.

*Adult.* General colour above dark brown, with narrow shaft-streaks of whity brown or whitish; least wing-coverts dark brown, like the back; rest of wing-coverts and quills light brown; tail dark brown; head all round, sides of face, throat, and underparts pure white, the thighs externally brown; under tail-coverts white, barred with blackish brown, more or less tinged with reddish brown; under tail-coverts and axillaries white, slightly mottled with brown bases; quills dark brown below, ashy brown along the edge of the inner web. Total length 7 inches, culmen 0·9, wing 3·05, tail 3·3, tarsus 0·95.

Younger birds are distinguished by more or less remains of brown feathers on the head; and the older birds appear to have the under tail-coverts buffy white, with only a few spots of dark brown.

The Brown-and-White Cactus-Wren is only found on the Isthmus of Panama, where its range is also somewhat limited.

*a.* Ad. sk. Isthmus of Panama. J. M'Cleannan, Esq. [C.].

### 5. Campylorhynchus variegatus.

Variegated Thrush, *Lath. Gen. Syn.* ii. pt. i. p. 29.
Turdus variegatus, *Gm. Syst. Nat.* i. p. 817.
Turdus scolopaceus, *Licht. Verz. Doubl.* p. 39.
Campylorhynchus scolopaceus, *Spix, Av. Bras.* i. p. 77, pl. 79. fig. 1; *Lafr. Rev. Zool.* 1846, p. 94; *Sclater, Pr. Philad. Acad.* viii. p. 264.
Picolaptes scolopaceus, *Lafr. Rev. Zool.* 1833, pl. 46.

Kampilorhynchus scolopaceus, *Less. Rev. Zool.* 1843, p. 326.
Campylorhynchus variegatus, *Gray, Gen. B.* i. p. 159; *Cab. Mus. Hein.* i. p. 80; *Burm. Th. Bras.* iii. p. 131; *Sclater, Cat. Amer. B.* p. 16; *Gray, Hand-l. B.* i. p. 192, no. 2634; *Pelz. Orn. Bras.* pp. 49, 414; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5.

*Adult.* General colour above nearly uniform brown, the feathers margined with ashy brown, somewhat more rufescent on the lower back and rump; upper tail-coverts barred with pale rufescent brown: tail nearly uniform, the feathers with pale rufous-brown indentations or margins on the outer web; least wing-coverts like the back, and edged with ashy brown; remainder of the wing-coverts and quills dark brown, edged or indented with rufous-brown; lores and a streak over the eye dull white; cheeks and ear-coverts white, mottled with dusky brown margins to the feathers; throat white, unspotted; remainder of under surface of body white, the sides and under tail-coverts pale rufous buff; the fore neck, breast, and abdomen spotted with dark brown, the sides of the body and under tail-coverts barred with the same colour; under wing-coverts and axillaries pale rufous-buff, spotted with darker brown; quills dusky brown below, pale rufous-buff along the edge of the inner web; "upper mandible greyish brown, lower one whitish flesh-brown; feet lead-colour; iris reddish brown" (*Prince Max. of Neuwied*). Total length 8 inches, culmen 0·9, wing 3·55, tail 3·5, tarsus 1·1.

*Young.* Differs from the adult in having the mantle and back barred with dull whitish, as well as the wing-coverts; the lower back, rump, and upper tail-coverts narrowly barred with rufous; underneath, the throat is dull white, the spots on the breast are smaller, and the bars on the flanks and under tail-coverts are narrow.

The Brazilian Cactus-Wren inhabits Brazil and Amazonia. It appears to be most plentiful in the neighbourhood of Bahia.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | Bahia. | Purchased. |
| *c*, *d*. Juv. sk. | Brazil. | Purchased. |
| *e*. Ad. sk. | Brazil. | Purchased. |
| *f*. Imm. sk. | Brazil. | Purchased. |

### 6. Campylorhynchus hypostictus.

Campylorhynchus hypostictus, *Gould, P. Z. S.* 1855, p. 68; *Sclater, Proc. Philad. Acad.* 1856, viii. p. 264; *Scl. & Salv. P. Z. S.* 1866, p. 178; *Gray, Hand-l. B.* i. p. 192, no. 2643; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5.
Campylorhynchus striaticollis, *Scl. P. Z. S.* 1857, p. 272; *id. Cat. Amer. B.* p. 16; *Gray, Hand-l. B.* i. p. 192, no. 2651.

*Adult female.* General colour above nearly uniform brown; the feathers of the upper surface margined with dull ashy, those of the lower back, rump, and upper tail-coverts with pale rufescent brown, the latter narrowly barred with blackish brown; tail-feathers uniform brown, with indications of dusky cross bars in certain lights, and remains of pale rufous edgings on some of the feathers; wing-coverts like the back, edged with dull ashy, the greater series

with pale rufous; primary-coverts uniform dusky brown; quills dark brown, externally edged with pale rufous; lores, feathers round the eye, and a narrow eyebrow white; checks and ear-coverts dull white, the feathers edged with dusky brown, the upper edge of the latter blackish brown; a narrow moustachial line of blackish brown; under surface of body dull white; the throat and breast profusely spotted with blackish brown, the flanks barred with the same colour and slightly tinged with pale rufous; thighs dusky brown, with pale edgings; under tail-coverts light rufous-brown, barred with blackish brown; under wing-coverts dusky brown, streaked and spotted with blackish brown; quills dusky brown below, ashy fulvous along the edge of the inner web. Total length 7·4 inches, culmen 0·95, wing 3·3, tail 3·2, tarsus 1.

*Adult male.* Similar to the female in plumage. Total length 7·2 inches, culmen 0·95, wing 3·15, tail 3·1, tarsus 1·05. (*Mus. Salvin and Godman.*)

Gould's Cactus-Wren inhabits Upper Amazonia, whence it ranges into Colombia.

*a*. ♀ ad. sk. Upper Ucayali, May 3, 1865. Edward Bartlett, Esq. [C.].
*b*. ♀ ad. sk. Ucayali River. H. W. Bates, Esq. [C.].

### 7. Campylorhynchus unicolor.

Picolaptes scolopaceus, *Lafr. et d'Orb. Mag. de Zool.* 1837, p. 46 (*nec Licht.*).

Anumbius scolopaceus, *d'Orb. Voy. Amér. mérid., Ois.* p. 256 (*nec Licht.*).

Campylorhynchus unicolor, *Lafr. Rev. Zool.* 1846, p. 93; *Gray, Gen. B.* i. p. 159; *Bp. Consp.* i. p. 223; *Sclater, Pr. Philad. Acad.* 1856, viii. p. 264; *id. Cat. Amer. B.* p. 16; *Gray, Hand-l. B.* i. p. 192, no. 2644; *Pelz. Orn. Bras.* pp. 49, 414; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5; *id. P. Z. S.* 1879, p. 592.

Campylorhynchus unicoloroides, *Lafr. Rev. Zool.* 1846, p. 316 (av. juv.); *Gray, Gen. B.* i. p. 154; *Bp. Consp.* i. p. 223; *Sclater, Pr. Philad. Acad.* 1856, p. 264.

*Adult male.* General colour above pale brown, quite uniform, with the exception of a few dark-brown centres to some of the feathers of the crown; hind neck and mantle slightly washed with ochreous brown; least wing-coverts like the back, the median and greater series brown, margined with ashy fulvous; quills dark brown, edged externally with clearer fulvous, the inner secondaries with ashy fulvous; upper tail-coverts and tail-feathers margined with pale ashy fulvous, both on the outer and inner web of the rectrices; lores and an eyebrow creamy buff; ear-coverts and sides of face buffy white, the former brown along the upper margin; throat buffy white, deeper fulvous, or light fulvous brown; moustache and sides of throat faintly tinged with deeper fulvous; on the sides of the breast a few faintly indicated spots of dusky, as also on the lower flanks; under tail-coverts fulvous, very distinctly spotted with dark brown, and extending across some of the

feathers so as to look like bars; under wing-coverts and axillaries fulvous, inclining to pale fawn-buff; quills brown below, ashy fulvous along the edge of the inner web. Total length 8 inches, culmen 0·9, wing 3·45, tail 3·3, tarsus 1·1. (*Mus. P. L. Sclater.*)

The Brown Cactus-Wren is known from Western Brazil and Bolivia.

*a.* Ad. sk. Bolivia. Mr. Bridges [C.].

### 8. Campylorhynchus capistratus.

Picolaptes capistrata, *Less. Rev. Zool.* 1842, p. 174; *Des Murs, Icon. Orn.* pl. 63.

Campylorhynchus capistratus, *Gray, Gen. B.* i. p. 159; *Bp. Consp.* i. p. 243; *Sclater, Proc. Philad. Acad.* 1856, p. 264; *Sclater, P. Z. S.* 1859, pp. 363, 371; *Scl. & Salv. Ibis*, 1859, p. 8; *G. C. Taylor, Ibis*, 1860, p. 317; *Baird, Review Amer. B.* p. 104; *Salv. Ibis*, 1866, p. 202; *Lawr. Ann. Lyc. N. Y.* ix. p. 92; *Gray, Hand-l. B.* i. p. 192, no. 2641; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5; *Salvin & Godman, Biol. Centr.-Amer., Aves*, i. p. 64.

Campylorhynchus rufinucha, *Lafr. Rev. Zool.* 1845, p. 339, 1846, p. 94; *Less. Descr. Mamm. et Ois.* p. 285; *Salv. Ibis*, 1866, p. 191; *Baird, Rev. Amer. B.* i. p. 105; *Salv. Ibis*, 1866, p. 191; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5.

Heleodytes capistratus, *Cab. J. f. O.* 1860, p. 409.

Troglodytes (Campylorhynchus) cervicalis, *Licht. fide Cab. J. f. O.* 1860, p. 409.

*Adult* (Savana Grande, Guatemala). General colour above bright chestnut-brown, the scapulars varied with half-concealed spots and streaks of white flanked by larger spots of black; wing-coverts chestnut-brown, barred with black, and having whitish shaft-lines; primary-coverts blackish brown, notched externally with chestnut; quills blackish brown, notched on the outer web with chestnut-brown, inclining to buffy white, the inner secondaries mottled and barred with chestnut-brown; upper tail-coverts chestnut-brown, barred with black, the rufous interspaces inclining to ashy fulvous on many of the coverts; centre tail-feathers blackish, barred with brown on the outer web, the tips ashy brown, mottled with blackish and having a broad subterminal bar of black; the remainder of the tail-feathers black, ashy at the tips and subterminally white, with a black spot before the end of the outer web, which has also slight indications of whitish notches, larger on the outermost feather; a very broad white eyebrow from the base of the bill to the side of the nape; lores and a streak along the upper margin of the ear-coverts black; sides of face and under surface of body creamy white, inclining to buff on the flanks; under wing-coverts and axillaries pure white; quills dusky brown below, ashy white along the edge of the inner web. Total length 6·8 inches, culmen 0·95, wing 2·85, tail 2·7, tarsus 0·95. (*Mus. Salvin and Godman.*)

*Obs.* Like Messrs. Salvin and Godman, I cannot believe in the *C. rufinucha* of Prof. Baird being a distinct species from *C. capistratus*, and I consider it very probably only a younger stage of the latter species. It differs from *C. capistratus*, as described above, in having

the entire upper surface streaked with white and mottled with black spots, which impinge on the central white markings; on the mantle the white spots are rufescent, on the lower back they take the form of long streaks bordered on each side with black; the hind neck is uniform chestnut. Such are the differences shown in a specimen lent to me by Messrs. Salvin and Godman from Costa Rica (*Carmiol*). This bird they have compared with Baird's type of *C. rufinucha*, which it resembles on the back; but the latter has a few scattered spots on the flanks and a barred crissum. Guatemalan specimens in the Salvin and Godman collection have remains of both the dorsal spotting and the spotted flanks and under tail-coverts, and in one bird the latter are barred, so that these markings are evidently not specific characters, but disappear. Even if the idea that they are merely indications of age be unaccepted, and the Costa-Rica bird be considered a distinct race, it could never be separated specifically, on account of the complete gradation of intermediate links afforded by the Guatemalan series.

The Chestnut-backed Cactus-Wren is only found in Central America, where it inhabits the outskirts of forests and open country, from the sea-level up to about 3000 feet elevation. It occurs from the State of Vera Cruz in Mexico to Costa Rica.

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| *a*. Ad. sk. | Guatemala. | Eyton Collection. |
| *b*. Ad. sk. | Realejo, Nicaragua. | G. Barclay, Esq. [C.]. |

### 9. Campylorhynchus humilis.

Campylorhynchus humilis, *Sclater, Proc. Acad. Nat. Sci. Philad.* 1856, p. 263; *Baird, Review Amer. B.* p. 107; *Gray, Hand-l. B.* i. p. 193, no. 2657; *Sumichr. Mem. Bost. Soc. N. H.* i. p. 545; *Lawr. op. cit.* ii. p. 267; *id. Bull. U.S. Nat. Mus.* no. iv. p. 13; *Sel. & Salv. Nomencl. Av. Neotr.* p. 5; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 65.

Campylorhynchus rufinucha, *Gray, Hand-l. B.* i. p. 192, no. 2645 (*nec Lafr.*).

*Adult.* General colour above light brown, mottled with white streaks on the back, nowhere very distinct, the white streaks having blackish-brown spots on each side, imparting a somewhat barred appearance; least wing-coverts like the back; median and greater coverts brown, barred with white and black and varied with central triangular spots of white: primary-coverts uniform brown; quills brown, notched with buffy white on the outer web, producing a barred appearance, the inner secondaries barred right across the feathers; upper tail-coverts brown, barred with blackish and more narrowly with white; tail-feathers ashy brown, narrowly tipped with whitish, and barred across with blackish brown, about seven dark bars being recognizable: remainder of tail-feathers black, notched with white on the outer web, and having a broad bar of white near the tip of the inner web; all the feathers with a subterminal bar of ashy brown, the outer feather barred with white for the terminal third; head chestnut-brown, the hind neck chestnut, the feathers of the forehead and the crown black with chestnut edgings; a broad eyebrow buffy white, surmounted by a narrow

line of black; lores dusky; feathers round the eye, sides of face, and ear-coverts buffy white, the upper margin of the latter chestnut streaked with black; cheeks white, separated from the throat by a narrow black moustachial streak; under surface of body creamy white, the under tail-coverts barred with black; under wing-coverts and axillaries white; quills ashy brown below, lighter ashy along the edge of the inner web; "bill blackish, basal half of lower mandible and feet light plumbeous; iris bright brick-red" (*Sumichrast*). Total length 5·8 inches, culmen 0·9, wing 2·7, tail 2·4, tarsus 0·85.

Sclater's Cactus-Wren inhabits Western Mexico, from Mazatlan to Tehuantepec.

*a*. Ad. sk. Mexico. Purchased.

### 10. Campylorhynchus jocosus.

Campylorhynchus jocosus, *Sclater, P. Z. S.* 1859, p. 371; *id. Cat. Amer. B.* p. 17, pl. 3; *Baird, Review Amer. B.* p. 106; *Gray, Hand-l. B.* i. p. 192, no. 2648; *Lawr. Bull. U.S. Nat. Mus.* no. iv. p. 13; *Sclater & Salv. Nomencl. Av. Neotr.* p. 5; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 66.

*Adult*. General colour above light brown, varied with white streaks and black spots, the streaks widening into triangular marks, flanked by black spots, producing a somewhat barred appearance; rump and upper tail-coverts light brown, barred with dusky brown and whitish; wing-coverts like the back; quills dusky brown, notched with fulvous, producing a barred appearance, the inner secondaries barred across, the light notches on the outer web being tinged with rufous; two centre tail-feathers ashy brown, barred with dusky brown, more broadly on the outer web; remainder of the tail-feathers blackish brown, tipped with ashy, with a broad subterminal bar of white, the outer web notched with white, producing a chequered appearance; outer tail-feather barred with white on the inner web also, the others edged or minutely notched near the tip; crown of head blackish, the feathers with obsolete margins of ashy brown, the nape clearer brown; a very broad and distinct eyebrow from the base of the bill to the side of the nape; lores black; ear-coverts and sides of face white, with a broad streak of dark brown along the upper margin of the former; sides of neck streaked with black and white; cheeks white, separated from the throat by a narrow moustachial line of black; throat pure white; remainder of under surface of body white, spotted with black, those on the breast and fore neck smaller and more rounded, those on the flanks more in the form of bars; lower flanks and under tail-coverts slightly tinged with rufous-brown and barred with blackish brown; under wing-coverts and axillaries whitish, mottled with blackish bases to the feathers; quills dusky brown below, fulvescent along the edge of the inner web; "bill blackish; feet dusky ash; iris red-brown" (*Sumichrast*). Total length 6·4 inches, culmen 1, wing 3, tail 2·85, tarsus 0·95.

Boucard's Cactus-Wren is confined to Mexico, where it has a limited range, from Tehuacan to Oaxaca.

*a*. Ad. sk. Mexico. Purchased.

### 11. Campylorhynchus gularis. (Plate XII. fig. 2.)

Campylorhynchus gularis, *Sclater, P. Z. S.* 1860, p. 462; *Baird, Review Amer. B.* p. 109; *Sclater, Cat. Amer. B.* p. 17; *Gray, Hand-l. B.* i. p. 192, no. 2653; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5; *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 66.

*Adult.* General colour above reddish brown, streaked with white, the white streaks edged with black and very distinct on the hind neck; the back also streaked with white, but more mottled, the spots being diamond-shaped and having a large black spot on each side; upper tail-coverts tawny brown, barred with narrow cross lines of white and dusky brown, more distinct on the outer ones; wing-coverts brown, barred with blackish brown, and having triangular spots of white; quills brown, barred with pale reddish brown and black on the outer webs, the pale bars inclining to white on the edge of the primaries; inner secondaries mottled across with dusky brown, all the others uniform brown on the inner web; centre tail-feathers pale ashy brown, with a whitish tip, very faintly freckled with blackish-brown cross bars, many of them broken up and having the appearance of spots; remainder of tail-feathers dusky brown, with a broad ending of ashy white, the outer webs barred with blackish and dull white, many of the light bars tinged with rufous; outer tail-feathers more distinctly barred, the bars extending to the inner web; crown of head dull rufous-brown, the feathers pointed with paler reddish-brown tips; a very broad fulvous eye-brow, extending from the base of the bill to the side of the nape; lores dusky; ear-coverts dull whitish, the upper margin reddish brown; cheeks white, separated from the throat by a narrow moustachial line; throat and fore neck white, unspotted; rest of under surface pale tawny buff, the centre of the abdomen buffy white, without spots; sides of breast with small spots of black, larger and more inclining to bars on the flanks, which have indications also of white bars; under tail-coverts tawny buff, with a few black spots; thighs reddish brown, barred with buffy white like the sides of the vent; under wing-coverts and axillaries white, washed slightly with brown; quills dull brown below, mottled with whitish along the inner web, as well as the outer one. Total length 7 inches, culmen 0·8, wing 2·75, tail 3·15, tarsus 0·9.

*Obs.* I have compared the specimen in the British Museum with the type in Dr. Sclater's collection, and find that it is not only identical, but that it was evidently prepared by the same hands. It may be, therefore, as Mr. Salvin suggests, that the collector of these specimens was Floresi, who collected in Central Mexico, which may perhaps be the habitat of the species.

*a*. Ad. sk. Mexico. J. Gould, Esq.

### 12. Campylorhynchus zonatus.

Picolaptes zonatus, *Less. Cent. Zool.* pl. 70; *Lafr. Rev. Zool.* 1846, p. 94.

Campylorhynchus zonatus, *Gray, Gen. B.* i. p. 159; *Bp. Consp.* i. p. 223; *Cab. Mus. Hein.* Th. i. p. 80; *Scl. Pr. Philad. Acad.* 1856, p. 264; *id. P. Z. S.* 1856, p. 290, 1859, p. 363; *Scl. & Salv. Ibis*, 1860, p. 29; *Sel. Cat. Amer. B.* p. 17; *Baird, Review Amer. B.* p. 104; *Gray, Hand-l. B.* i. p. 192, no. 2636; *Lawr. Ann. Lyc. N. Y.* ix. p. 92; *Sumichr. Mem. Bost. Soc. N. H.* ii. p. 545; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5; *Lawr. Bull. U.S. Nat. Mus.* no. iv. p. 13; *Boucard, P. Z. S.* 1878, p. 51; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 68.

Campylorhynchus nigriceps, *Sclater, P. Z. S.* 1860, p. 461; *id. Cat. Amer. B.* p. 18; *Baird, Review Amer. B.* p. 109; *Gray, Hand-l. B.* i. p. 193, no. 2654.

*Adult male* (Parita, Costa Rica, April 5, 1867; J. Carmiol). Head ashy grey, mottled with blackish bases to the feathers; nape slightly tinged with rufous; mantle spotted with white and black, as well as the sides of the neck, the feathers white down the centre, with black spots on each side of the central marks, producing a streaked appearance; remainder of the back and scapulars barred with black and dull white, the lower back and rump tinged with rufous and more obscurely barred; the upper tail-coverts also tinged with rufous and more broadly barred with black; wing-coverts barred with black and white like the back; quills blackish, the primaries notched externally with white, the inner secondaries barred across with white; tail-feathers light brown, barred across with blackish brown, the light bars becoming fulvous on the margins of the feathers, the outer ones barred across with buffy white; a narrow white eyebrow running from the base of the bill to the sides of the neck; sides of the face dull white, streaked with blackish, the upper margin of the ear-coverts rufous-brown; throat and breast pure white, with large rounded spots of black, rather smaller on the sides of the breast; abdomen, sides of body, thighs, and under tail-coverts chestnut, the latter spotted with black; under wing-coverts dull white, spotted with black; axillaries pale chestnut, streaked with black; quills dusky brown below, notched with white on the inner web; "upper mandible black, lower one horny; feet yellowish olive; iris cinnamon-red" (*Sumichrast*). Total length 7 inches, culmen 0·9, wing 2·9, tail 3, tarsus 0·9. (*Mus. Salvin and Godman.*)

*Young.* (*C. nigriceps*, Sclater.) Differs from the adult in being more rufous in colour, the spots on the mantle being fulvous and very large, the tail-feathers also notched with fulvous; sides of face and underparts duller than in the adult, the feathers narrowly margined with dusky brown. It is especially distinguished, however, by its uniform black head.

The Rufous-bellied Cactus-Wren is an inhabitant of Central America, where it extends from Southern Mexico to Guatemala and Costa Rica.

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| *a*, *b*. Ad. sk. | Central America. | Purchased. |
| *c*. Ad., *d*. Juv. sk. | Costa Rica. | Mr. Van Patten [C.]. |
| *e*, *f*. Ad. sk. | Mexico. | Purchased. |

### 13. Campylorhynchus couesi*.

Picolaptes brunneicapillus (*nec Lafr.*), *Lawr. Ann. Lyc. New York*, v. p. 114; *Baird in Stansbury's Rep.* p. 327; *Heerm. Journ. Acad. Philad.* 1853, p. 263; *Cass. Ill. B. Calif. & Texas*, p. 156, pl. 25.

Campylorhynchus brunneicapillus, *Sclater, Proc. Acad. Philad.* 1856, p. 264; *Baird, North Amer. Birds*, 1858, p. 355; *Sclater, Cat. Amer. B.* p. 17; *Baird, Review Amer. B.* p. 99; *Dresser, Ibis*, 1865, p. 483; *Coues, Proc. Acad. Philad.* 1866, p. 77, 1868, p. 83; *Cooper, B. Calif.* p. 61; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5; *Coues, Key N. Amer. B.* p. 85; *Baird, Brewer, & Ridgw. North-Amer. B.* i. p. 132, pl. 8. fig. 5; *Henshaw, Zool. Expl. W.* 100 *Merid.* 1876, p. 178; *Coues, B. Color. Vall.* p. 157; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 67†.

*Adult* [*male*]. General colour above ashy brown, barred across with dusky brown, and varied with triangular spots of white, which are flanked with blackish markings, producing a barred appearance; wing-coverts like the back, and marked in the same manner; primary-coverts dark brown, washed with ashy on the outer web and notched with white towards the ends; quills sepia-brown, chequered with small white notches on the outer web, the secondaries mottled with ashy brown and barred with blackish on the outer web; all the quills narrowly tipped with whity brown; upper tail-coverts ashy grey, barred with blackish brown; centre tail-feathers brown, indistinctly barred with blackish brown, and inclining to ashy brown at the tip; remainder of tail-feathers blackish, edged with ashy brown near the base of the outer web and at the end of the feather, which has a broad subterminal bar of white near the end of the inner web, the white bars two in number on the penultimate feather, the external one being barred with white for its whole extent, the basal bars being narrower; head dark chocolate-brown, slightly mottled with blackish bases to the feathers; a broad white eyebrow extending from the base of the bill to the sides of the nape; lores blackish; ear-coverts dull white, streaked with blackish, the upper margin chocolate-brown; throat white, thickly mottled with black spots, all the feathers broadly edged with black as far as the fore neck; breast creamy white, with pear-shaped spots of black all over it, becoming smaller on the flanks, which are light tawny buff, like the abdomen, vent, and under tail-coverts; under tail-coverts white, washed with tawny buff at the base, with large heart-shaped spots of black; under wing-coverts dull white, the

* It is strange that Lafresnaye's name should have been so long used for this species, in spite of the statements made by Professor Baird and Dr. Coues respecting the disagreement of the description with the bird usually called *C. brunneicapillus*. Thus Lafresnaye describes his *Picolaptes brunneicapillus* from "California" with the back coloured as follows:—"Parsemé, depuis la nuque, des stries blanches, longitudinales et linéaires, occupant le milieu des plumes." This does not agree with the Texan bird, but with *C. affinis*. His figure is irrecognizable.

† For other references to this species in different Survey reports, *cf. Coues, B. Color. Vall.* p. 157.

axillaries washed with tawny buff, all of them mottled with blackish bases to the feathers; quills ashy brown below, chequered with white spots along the inside of the inner web; "bill blackish; lower mandible dull light bluish at the base; legs flax-brown; iris reddish brown" (*H. E. Dresser*). Total length 7·3 inches, culmen 1, wing 3·35, tail 3·4, tarsus 1·05. (*Mus. Salvin & Godman.*)

*Adult female.* Quite like the male, but the spots on the throat and breast rather smaller, therefore less crowded and less strongly contrasting with the sparse speckling of the rest of the underparts. (*Coues, B. Color. Vall.* p. 156.)

*Young.* A newly fledged specimen is very similar to the adult in the upper parts, but the throat is whitish, with little speckling, and there are scarcely any spots on the rest of the underparts, which are, however, as decidedly cinnamon as those of the adults. (*Coues, l. c.*)

The Cactus-Wren is found in the Southern United States, in the valleys of the Rio Grande and Colorado, Southern California, Utah, and Nevada, ranging into Mexico, where it is common along the northern frontier, and extends to the vicinity of the city of Mexico itself.

*a.* ♀ ad. sk. Larido, Texas, Feb. 28, 1867, Smithsonian Institution [P.]. (*Dr. H. B. Butcher*).

### 14. Campylorhynchus brunneicapillus.

Picolaptes brunneicapillus, *Lafr. Mag. de Zool.* 1833, *Oiseaux*, pl. 47.
Campylorhynchus brunneicapillus, *Lafr. Rev. Zool.* 1846, p. 94; *Gray, Gen. B.* i. p. 159; *Bp. Consp.* i. p. 223.
Campylorhynchus affinis, *Xantus, Proc. Philad. Acad.* 1859, p. 298; *Baird, t. c.* p. 303; *Sclater, Cat. Amer. B.* p. 17; *Baird, Review Amer. B.* p. 100; *Elliot, New and Unfig. B. N. Amer.* i. pl. iv.; *Cooper, Orn. Calif.* p. 62; *Coues, Key N. Amer. B.* p. 85; *Baird, Brewer, & Ridgw. N.-Amer. B.* i. p. 133.

*Adult male in breeding-plumage.* General colour above ashy brown, longitudinally streaked with white, each of these white streaks laterally bordered with black; the mantle a little darker than the back; least wing-coverts ashy brown, like the back, and streaked in the same manner; median and greater coverts ashy brown, barred with dusky brown and ashy or whity brown, a few of the greater series having a triangular white spot near the tip; primary-coverts and quills dark brown, notched with whity brown or ashy white on the outer webs, producing a barred appearance, extending right across the innermost secondaries; upper tail-coverts ashy brown, barred across with dusky brown; two centre tail-feathers pale ashy brown, barred and mottled with dark brown, about nine dark bars being perceptible on them; remainder of the tail-feathers chequered with black and white, being broadly barred with white on the inner web, and having a square spot of white on the outer one, the white spots and bars not being conterminous;

the feathers next to the middle ones shaded with ashy; head chestnut-brown, varied with paler tips to the feathers, producing a somewhat spotted appearance; lores dull white, mottled with dusky bases to the feathers; over the eye a very distinct superciliary streak, stretching from the base of the nostril to the side of the nape, and fringed on its upper margin with a narrow edging of black, which separates it from the crown; ear-coverts dull white, streaked with black, with which colour the feathers are edged; cheeks white, streaked with a few blackish edgings to the feathers; under surface of body white, the abdomen and flanks tinged with buff, the whole lower surface spotted with black; the spots on the throat and chest confused and rather blotched, those on the breast and abdomen pear-shaped and very distinct, smaller on the abdomen; under tail-coverts white, with large black spots; thighs brown, mottled with dusky bases to the feathers; under wing-coverts and axillaries white, spotted with black; quills ashy brown below, with large white spots on the inner web, imparting a barred appearance to the lower surface of the wing; "iris brown" (*A. Forrer*). Total length 7·1 inches, culmen 1, wing 3·25, tail 3·2, tarsus 1·15.

*Adult female in breeding-plumage.* Similar to the male in colour. Total length 7·2 inches, culmen 1, wing 3·2, tail 3·1, tarsus 1·1.

*Winter plumage.* Not different in any particular degree from the summer plumage, beyond the fact that both sexes are perhaps a little lighter coloured and have the spots on the under surface a little smaller.

*Nestling male.* Distinguished from the adult birds by the blackish head. The general style of plumage is the same, but it is rather more reddish and is more spotted, the back, instead of being streaked, having triangular white spots on the feathers, which are also barred with dusky blackish. The under surface of the body is like the adult, but the blotchings on the throat and chest are broken up, so that these parts appear more spotted.

*Nestling female.* Similar to the nestling male, but a little more reddish brown above, the head clearer brown than in the foregoing.

Xantus's Cactus-Wren is confined to Lower California.

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| *a.* ♀ ad. sk. | La Paz, Lower California, Jan. 15. | A. Forrer [C.]. |
| *b.* ♂ ad. sk. | La Paz, March 27. | A. Forrer [C.]. |
| *c.* ♀ ad. sk. | La Paz, April 21. | A. Forrer [C.]. |
| *d.* ♂ ad. sk. | La Paz, Dec. 20. | A. Forrer [C.]. |
| *e, f.* ♂ ♀ pull. sk. | La Paz, April 15. | A. Forrer [C.]. |

### 15. Campylorhynchus brevirostris.

Campylorhynchus brevirostris, *Lafr. Rev. Zool.* 1845, p. 339; *id. Rev. Zool.* 1846, p. 94, juv.; *Gray, Gen. B.* i. p. 159; *Bp. Consp.* i. p. 223; *Sclater, Pr. Philad. Acad.* 1856, p. 264; *Gray, Hand-l. B.* i. p. 192, no. 2638.

Campylorhynchus zonatoides, *Lafr. Rev. Zool.* 1846, p. 92; *Gray, Gen. B.* i. p. 159; *Bp. Consp.* i. p. 223; *Sclater, Pr. Philad. Acad.*

1856, p. 264; *id. Cat. Amer. B.* p. 17; *id. P. Z. S.* 1867, p. 135; *Gray, Hand-l. B.* i. p. 192, no. 2637; *Wyatt, Ibis*, 1871, p. 331; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5.

*Adult male* (vicinity of Bogotá; S. Crowther). General colour above whity brown, the feathers broadly banded with blackish brown; hind neck and mantle slightly tinged with reddish; head ashy brown, mottled with blackish centres to the feathers, which are black, edged with ashy grey; wing-coverts resembling the back, blackish, barred across with dull white, the greater coverts having two whitish bands besides a white tip; primary-coverts and quills blackish brown, notched with white on the outer web, the inner secondaries barred across with whitish; centre tail-feathers ashy brown with blackish cross bars, incomplete in the centre of the feathers, the light interspaces whitish on the extreme margin; the remainder of the tail-feathers blackish, mottled with blackish spots on the outer web, and notched on both webs with dull white, forming bars on the outermost feathers, which are ashy at the tip; a very narrow eyebrow, running from the base of the bill to the side of the nape, very indistinct; lores dusky; sides of face buffy white, mottled with blackish edges to the feathers, the upper margin of the ear-coverts dull brown; under surface of body buffy white, inclining to tawny buff on the abdomen, flanks, and under tail-coverts; the throat with rounded spots of black, decreasing in size and number towards the abdomen, which is almost unspotted, the under tail-coverts again spotted with black; flanks and thighs barred with blackish brown; under wing-coverts and axillaries pale tawny buff, spotted with blackish brown; quills dusky brown below, edged with white along the inner web. Total length 7·3 inches, culmen 0·95, wing 3·2, tail 3·25, tarsus 1. (*Mus. Salvin & Godman.*)

*Young.* Differs from the adult in being more fulvous above, in having the head blackish; the mantle not barred, but spotted with large buffy whitish markings; centre tail-feathers nearly uniform, the dark bars on all indistinct, and the pale notches fulvous instead of dull white; the under surface of the body not spotted, but barred with dusky margins to the feathers; sides of body, abdomen, and under tail-coverts tawny buff, with a few blackish spots and bars, the latter mesially streaked with blackish.

Lafresnaye's Cactus-Wren is entirely confined to New Granada.

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|---|---|---|
| *a, b.* Ad. sk. | Bogotá, New Granada. | Purchased. |
| *c.* ♂ juv. sk. | Bogotá. | Purchased. |
| *d.* Ad. sk. | New Granada. | Purchased. |

### 16. Campylorhynchus megalopterus.

Campylorhynchus megalopterus, *Lafr. Rev. Zool.* 1845, p. 339, 1846, p. 94; *Gray, Gen. B.* i. p. 159; *DesMurs, Icon. Orn.* pl. 54; *Bp. Consp.* i. p. 223; *Scl. Pr. Philad. Acad.* 1856, p. 264; *id. P. Z. S.* 1858, p. 298, 1859, pp. 363, 371; *id. Cat. Amer. B.* p. 17; *Gray, Hand-l. B.* i. p. 192, no. 2639.

Campylorhynchus pallescens, *Lafr. Rev. Zool.* 1846, p. 93; *Gray,*

*Gen. B.* i. p. 159; *Bp. Consp.* i. p. 223; *Baird, Review Amer. B.* p. 101; *Sumichr. Mem. Bost. Soc.* i. p. 544; *Gray, Hand-l. B.* i. p. 192, no. 2640; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 69.

Campylorhynchus pallidus (*lapsu*), *Lafr. Rev. Zool.* 1846, p. 94.

*Adult.* General colour above ashy, barred with blackish brown, the ashy whitish bars slightly tinged with fulvous; head entirely ashy brown, mottled with blackish-brown bases to the feathers; hind neck and sides of neck streaked with black and white; scapulars and wing-coverts like the back, broadly barred with black and white; quills blackish brown, spotted with white on the outer web, the inner secondaries tipped and barred across with ashy white; centre tail-feathers ashy brown, mottled with remains of blackish bars on the inner web, barred with black on the outer one; the outer feathers barred with white or ashy white; a distinct white eyebrow reaching from the base of the bill to the side of the nape; lores dusky; sides of face dull white, mottled with blackish streaks, the upper edge of the ear-coverts blackish brown; the cheeks separated from the throat by a narrow blackish moustachial line; under surface of body dull white, the flanks and abdomen washed with pale brownish; the throat and breast profusely spotted with dusky brown or blackish; the sides of the body, thighs, abdomen, and under tail-coverts barred with blackish brown, the thighs narrowly barred; under wing-coverts brownish white, spotted with blackish brown, the axillaries faintly barred; quills dusky brown below, whitish along the edge of the inner web. Total length 7 inches, culmen 0·85, wing 3·4, tail 3·3, tarsus 1·05.

*Young.* Differs from the adult in having the head uniform black, and the plumage spotted instead of barred, the back being varied with large ovate spots of brownish white or ochraceous brown; eyebrow and sides of face pale fulvous brown, the whole of the under surface also tinged with this shade; throat dull white, unspotted; the breast and underparts barred with blackish brown, with a few blackish spots on the breast. (*Mus. Salvin & Godman.*)

The Grey Cactus-Wren inhabits the highlands of Southern Mexico, at a height of from 5000 to 6500 feet.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | La Parada, Mexico. | M. Sallé [C.]. |
| *b.* Ad. sk. | La Parada, Mexico. | M. Boucard [C.]. |
| *c.* Ad. sk. | [Mexico.] | J. Gould, Esq. |
| *d, e.* Ad. sk. | [Mexico.] | Purchased. |

### 17. Campylorhynchus balteatus.

Campylorhynchus zonatoides, *Sclater, P. Z. S.* 1860, p. 272 (*nec Lafr.*).
Campylorhynchus pallescens, *Sclater, Cat. Amer. B.* p. 16 (*nec Lafr.*).
Campylorhynchus balteatus, *Baird, Review Amer. B.* p. 103; *Gray, Hand-l. B.* i. p. 193, no. 2655; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5; *Tacz. P. Z. S.* 1877, pp. 319, 749.

*Adult.* General colour above pale; the head ashy grey, mottled with blackish centres to the feathers; hind neck streaked with

black and white, the feathers having broad ovate centres of white; entire mantle and back barred with black and white, as well as the scapulars and wing-coverts; quills blackish, notched with white on the outer web, the inner secondaries barred and tipped with white; upper tail-coverts barred like the back; centre tail-feathers ashy brown, notched externally with white and barred with black, which, however, does not extend across the feathers; remainder of the tail-feathers blackish brown, notched with white on both webs, the outer tail-feathers barred across with white; lores and narrow eyebrow white; cheeks and ear-coverts dull white, streaked with pale brown, the feathers being edged with this colour; under surface of body dull white like the throat, browner on the flanks, and slightly rufescent on the under tail-coverts; the throat faintly, and the fore neck and breast distinctly, spotted with blackish, the flanks barred with the same colour, the under tail-coverts very distinctly; under wing-coverts and axillaries dull white, spotted with dusky blackish; quills dusky brown below, white along the edge of the inner web; "bill brownish above, flesh-colour beneath; legs and feet yellowish; iris reddish yellow" (*L. Fraser*); "iris rosy white" (*Jelski*). Total length 7·6 inches, culmen 0·8, wing 3·05, tail 3·15, tarsus 0·9.

The Ecuadorian Cactus-Wren is found in the mountains of Ecuador.

| | | |
|---|---|---|
| *a*. Ad. sk. | West coast of Ecuador. | Purchased. |

### 18. **Campylorhynchus fasciatus.**

Furnarius fasciatus, *Swains. An. in Menag.* p. 351; *Gray, Gen. B.* i. p. 132; *id. Hand-l. B.* i. p. 165, no. 2186.
Campylorhynchus fasciatus, *Taczan. P. Z. S.* 1880, p. 190.

*Adult male* (in somewhat worn plumage). Above blackish, barred with white equally on the mantle as on the back, only the hind neck streaked longitudinally with white; head brown, mottled with darker brown centres to the feathers; least and median wing-coverts like the back, the greater series tipped and notched on the outer web with white; quills brown, externally notched with white, producing a chequered appearance; tail-feathers blackish brown, notched with white on both webs, more largely on the outer feathers, where the white markings reach across both webs and form bars; lores, eyebrow, and sides of face dull white, mottled with dusky tips to the feathers; under surface of body white, very thickly spotted with brown all over, all the spots very large and becoming bars on the flanks and sides of the body; under tail-coverts broadly barred with brown; under wing-coverts and axillaries white, largely spotted with brown; quills dusky brown below, notched with white on the inner web, producing a slightly barred appearance; "iris sienna-brown" (*Stolzmann*). Total length 7·8 inches, culmen 1·2, wing 3·35, tail 3·3, tarsus 1·05. (*Mus. P. L. Sclater.*)

Swainson's Grey Cactus-Wren is an inhabitant of the highlands of Peru.

*a*. ♀ ad. sk. San Pedro, Peru. Prof. Orton [C.].

### 19. Campylorhynchus guttatus.

Thryothorus guttatus, *Gould, P. Z. S.* 1836, p. 89.
Campylorhynchus guttatus, *Lafr. Rev. Zool.* 1846, p. 94; *Gray, Gen. B.* i. p. 159; *Bp. Consp.* i. p. 223; *Baird, Review Amer. B.* p. 108; *Lawr. Ann. Lyc. N. Y.* ix. p. 199; *Gray, Hand-l. B.* i. p. 192, no. 2649; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 68.

*Adult* (Merida; Dr. Schott). General colour above ashy brown with a sandy tinge, the hind neck and mantle broadly streaked with black and white. the feathers white down the centre, bordered with black; lower back also streaked like the mantle, but not so profusely; rump more uniform, barred across with blackish brown and concealed bars of white; upper tail-coverts ashy brown, barred with blackish brown, some of the light interspaces dull whitish; tail-feathers ashy brown, the four centre feathers chequered with black spots on both webs, the inner webs with indistinct blackish bars towards the end; remainder of the feathers blackish brown, ashy brown at the tips, with a subterminal white bar on the inner web; the outer web notched with ashy brown and barred with blackish, the outer feather having two white bars on the inner web, and the outer web having square spots of white along its whole length; a distinct white eyebrow, the hinder part of which is streaked with black like the sides of the neck; lores and sides of face dull white, the upper part of the latter brown; cheeks white, separated from the throat by a narrow moustachial line of black; under surface of body creamy white, the throat minutely spotted with blackish brown, the entire sides of the body rather narrowly barred with the same colour, the lower flanks and abdomen washed with light brown; thighs light brown. indistinctly barred with darker brown; centre of the breast and abdomen spotted with blackish brown, the spots being somewhat of an irregular shape, some round, and some longitudinal; under tail-coverts white, barred across with blackish; under wing-coverts and axillaries dull white, with longitudinal spots of blackish brown; quills dusky below, notched with white on the outer web, and edged with white along the inner one. Total length 7·5 inches, culmen 1·15, wing 2·9, tail 3, tarsus 1. (*Mus. Salvin and Godman.*)

The Yucatan Cactus-Wren was described from Mexico, but has only been actually collected, as far as is yet known, in Northern Yucatan, to which country it is probably confined.

### 20. Campylorhynchus nuchalis *.

Campylorhynchus nuchalis, *Cab. Arch. f. Naturg.* 1847, p. 206; *id. Mus. Hein.* Th. i. p. 80; *Bp. Consp.* i. p. 223; *Sclater, Pr. Philad. Acad.* 1856, p. 264; *id. Cat. Amer. B.* p. 17; *E. C. Taylor, Ibis*, 1864, p. 80; *Baird, Review Amer. B.* p. 103; *Scl. & Salv. P. Z. S.* 1868, p. 626; *Finsch, P. Z. S.* 1870, p. 554; *Gray, Hand-l. B.* i. p. 192, no. 2646; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5.

*Adult female* (San Esteban, Venezuela; A. Goering). General colour above black, very broadly streaked with central ovate markings down the centre of the feathers; lower back and rump white, broadly barred with black; upper tail-coverts barred with black and white; lesser and median wing-coverts black, spotted with white; greater coverts black, broadly barred with white; quills black, notched on the outer web with white, the inner secondaries tipped and more broadly notched with white, producing a barred appearance; tail-feathers black, notched with white on both webs, these spots becoming larger towards the outer feathers, which are barred across with white; head light ashy, mottled with black bases to the feathers; nape washed with sandy rufous; lores and a distinct eyebrow dull white; ear-coverts dingy white, the upper margin blackish; cheeks white, separated from the throat by a faintly indicated line of black; chin white, unspotted; throat and under surface of body white, profusely spotted with black, the sides of the body, thighs, and under tail-coverts barred with black; under wing-coverts and axillaries dull white, spotted with black; quills dusky brown below, chequered with white spots on the inner webs; "iris yellowish white, almost white" (*A. Goering*). Total length 6·8 inches, culmen 0·85, wing 2·85, tail 2·9, tarsus 0·8. (*Mus. Salvin and Godman.*)

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* CAMPYLORHYNCHUS BREVIPENNIS.

Campylorhynchus brevipennis, *Lawr. Ann. Lye. N. Y.* viii. p. 344 (1866); *Gray, Hand-l. B.* i. p. 193, no. 2656; *Pelz. Ibis*, 1875, p. 331, note.

This species is unknown to me, but I think it may prove to be *C. nuchalis*. The following is a description of the species as given by Mr. Lawrence:—Entire upper part of head blackish brown; on the hind neck a few longitudinal stripes of pale rufous; back, wing-coverts, and tertiaries dark hair-brown, with large whitish spots tinged with dilute rufous; on the back-feathers and tertiaries the spots are roundish and in pairs; on the larger wing-coverts there is a spot at the base of each feather, and another at the end running down the shaft; the larger quills are also dark brown, with marginal oblong whitish spots; upper tail-coverts dark brown, with pale bars of a dull rufous white; tail dark brown, the feathers with conspicuous whitish spots on each margin, arranged in pairs, there being about eight pairs on each of the longer feathers; a broad, nearly white, superciliary stripe extends from the nostrils to the nape; ear-coverts dusky; under plumage of a greyish white, just tinged with pale rufous on the abdomen, the breast mottled with minute, very faint dusky spots, and the sides with dusky bars; under tail-coverts very dilute rufous, with broad, rather faint, blackish bars; upper mandible brown, with the edges pale, the under whitish, dusky near the tip; tarsi and toes light brownish flesh-colour; claws yellowish. Length of skin 6 inches, wing $2\frac{1}{2}$, tail 3, bill $\frac{9}{10}$, tarsi $\frac{7}{8}$.

*Hab.* Venezuela (type in Mus. Smiths.).

The Fulvous-naped Cactus-Wren is only known from Trinidad and Venezuela.

*a*. Ad. sk. Trinidad. Eyton Collection.

### 21. **Campylorhynchus pardus.** (Plate XII. fig. 1.)

Campylorhynchus pardus, *Sclater, P. Z. S.* 1857, p. 271; *id. Cat. Amer. B.* p. 17, note; *Gray, Hand-l. B.* i. p. 192, no. 2642; *Wyatt, Ibis*, 1871, p. 321; *Scl. & Salv. Nomencl. Av. Neotr.* p. 5.

*Adult.* General colour above white and black, the whole of the mantle black streaked with white, the feathers being irregularly white in the centre; back, rump, and upper tail-coverts barred with black and white; head pale ashy brown, the head streaked with black, a few of the frontal plumes barred with black; wing-coverts black, barred with white, the greater series having two broad white bars; quills blackish brown, spotted with white externally, the inner secondaries with large white spots on both webs, forming an almost complete bar across the feather; tail-feathers dark brown, with large ashy-white markings on the centre feathers, reaching nearly across the feathers so as to form a bar; the remainder of the feathers spotted on the outer web, notched on the inner one, these markings increasing in size on the outer feathers, where they nearly form cross bars; a distinct white eyebrow from the base of the bill to the side of the nape; lores, feathers round the eye, ear-coverts, and cheeks pure white, with a narrow line of black along the upper margin of the ear-coverts; throat pure white; remainder of under surface of body white, with small rounded black spots on the fore neck and breast, these spots much larger on the flanks and under tail-coverts, the thighs barred; under wing-coverts white, minutely spotted with blackish, the axillaries streaked with the same; quills brown below, whitish along the edge of the inner web. Total length 6·6 inches, culmen 0·7, wing 2·75, tail 3, tarsus 0·9.

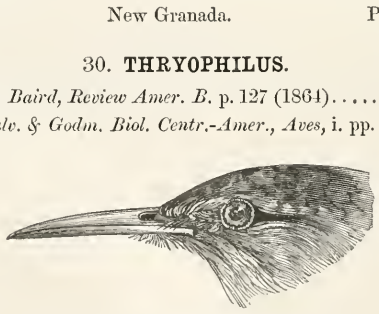
The Striped Cactus-Wren is only known from Colombia and New Granada. It is very doubtful whether it is really distinct from the foregoing species.

*a*. Ad. sk. New Granada. Purchased.

## 30. THRYOPHILUS.

Type.
Thryophilus, *Baird, Review Amer. B.* p. 127 (1864)..... T. rufalbus.

(Cf. *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. pp. 81–89.)



Head of *Thryophilus longirostris.*

*Range.* Central America, from Western Mexico to Southern Brazil.

*Key to the Species.*

*a.* Under surface uniform, not spotted or barred.
  *a'.* Under tail-coverts uniform.
    *a''.* Bars on tail not more than twelve or thirteen in number; eyebrow tolerably well pronounced ....
      *a'''.* Throat alone white; the rest of the under surface rufescent or fawn-colour.
        $a^4$. Ear-coverts very distinctly streaked with blackish, the feathers being edged with this colour.
          $a^5$. Bill 1 inch. Sides of neck reddish brown ..... *longirostris*, p. 206.
          $b^5$. Bill 0·75 inch. Sides of neck ashy greyish ..... *leucotis*, p. 207. / *minor*, p. 207.
        $b^4$. Ear-coverts white, with scarcely any trace of dusky edgings or streaks .. *galbraithi*, p. 208.
      *b'''.* Throat white, as well as the breast, the latter somewhat washed with ashy.
        $c^4$. Bars on wings obsolete or only faintly indicated.
          $c^5$. Upper surface more rufescent brown; bands on tail narrower.. *modestus*, p. 209.
          $d^5$. Upper surface more greyish; bands on tail broader..... *zeledoni*, p. 210.
        $d^4$. Bars on wings and tail distinct.
          $e^5$. Eyebrow, sides of face, and under surface pure white; lower flanks and under tail-coverts pale fawn-colour ..... *superciliaris*, p. 210.
          $f^5$. Eyebrow indistinct; under surface washed with ashy; ear-coverts ashy white with dusky streaks.. *rufalbus* juv., p. 212.
    *b''.* Bars on tail very numerous, about 27 in number; eyebrow very broad and distinct ..... *guarayanus*, p. 211.
  *b'.* Under tail-coverts white, broadly barred with black.
    *c''.* Larger; wing 2·65 inches: general colour above bright rufous; lesser wing-coverts not spotted with white ..... *rufalbus* ad., p. 212.
    *d''.* Smaller; wing 2·15 inches: general colour above brown, somewhat olivaceous in tint; lesser wing-coverts with minute spots of white along the shaft ..... *sinaloa* ad., p. 213.
*b.* Under surface parti-coloured, either spotted or barred.
  *c'.* Head brown, like the back.
    *e''.* Throat and breast white, not streaked; flanks white, barred with black, as also the under tail-coverts.

*c'''*. Sides of body only barred; abdomen white ..... *pleurostictus*, p. 213.
*d'''*. Sides of body and abdomen barred right across ..... *nisorius*, p. 214.
*f''*. Throat and breast white, narrowly streaked with blackish; flanks reddish or olive-brown; under tail-coverts buffy white, barred with black ..... *thoracicus*, p. 215.
*d'*. Head chestnut, like the back; throat white; rest of under surface white, narrowly barred with black ..... *semibadius*, p. 216.
*e'*. Head black; back chestnut.
*g''*. Throat only white; remainder of under surface bright chestnut, not barred on the sides ..... *castaneus*, p. 216.
*h''*. Throat and fore neck white; under surface light chestnut, the sides with narrow black bars ..... *costaricensis*, p. 217.
*i''*. Throat and breast white, barred across with black ..... *nigricapillus*, p. 217.

## 1. Thryophilus longirostris.

Troglodytes longirostris, *Vieill. Nouv. Dict. d'Hist. Nat.* xxxvi. p. 56; *id. Gal. des Ois.* pl. 168; *Gray in Griff. An. Kingdom, Birds*, p. 48, cum fig.; *id. Gen. B.* i. p. 158; *id. Hand-l. B.* i. p. 189, no. 2568.
Troglodytes striolatus, *Neuwied, Beitr. Naturg. Bras.* iii. p. 748.
Campylorhynchus striolatus, *Spix, Av. Bras.* i. p. 77, pl. 79. fig. 2.
Thryothorus striolatus, *Swains. Orn. Draw.* pl. 16; *Burm. Syst. Uebers.* ii. p. 135; *Bp. Consp.* i. p. 221; *Pelz. Orn. Bras.* ii. p. 47.
Thryothorus longirostris, *Sclater, Cat. Amer. B.* p. 20.
Thryophilus longirostris, *Sclater & Salv. Nomencl. Av. Neotr.* p. 6.

*Adult*. General colour above rufous-brown; the head dusky brown, and contrasting with the back; rump and upper tail-coverts rather deeper rufous than the rest of the back, the latter with obsolete blackish bars; wing-coverts like the back, the greater series, as well as the primary-coverts and bastard wing, rufous, barred with black; quills dusky brown, externally rufous, barred or notched with black, more distinctly on the secondaries, the innermost of which are barred across with blackish; tail rufous, barred across with black in somewhat zigzag fashion on the outer feathers; lores and a tolerably distinct eyebrow white; ear-coverts and sides of face narrowly streaked with blackish, the feathers edged with blackish; the upper margin of the ear-coverts dark brown, forming a streak; throat white; remainder of under surface of body pale fawn-buff; the sides of the body deeper fawn-colour, as also the under tail-coverts; under wing-coverts fawn-buff; quills dusky brown below, fawn-colour along the edge of the inner web. Total length 5 8 inches, culmen 1, wing 2·65, tail 2·3, tarsus 0·95.

The Long-billed Wren is an inhabitant of Brazil only.

| | | |
|---|---|---|
| *a*, *b*, *c*. Ad. sk. | Brazil. | R. B. Sharpe, Esq. [P.]. |
| *d*. Ad. sk. | Brazil. | Prince Lichtenstein [P.]. |

### 2. Thryophilus leucotis *.

Thryothorus leucotis, *Lafr. Rev. Zool.* 1845, p. 338; *Bp. Consp.* i. p. 221; *Pelz. Orn. Bras.* p. 47.
Thryothorus albipectus, *Cab. in Schomb. Reis. Guian.* iii. p. 673.
Troglodytes leucotis, *Gray, Gen. B.* i. p. 158; *id. Hand-l. B.* i. p. 189, no. 2573.
Troglodytes albipectus, *Gray, Hand-l. B.* i. p. 190, no. 2597.
Thryophilus leucotis, *Scl. & Salv. Nomencl. Av. Neotr.* p. 6.

*Adult male* (San Esteban, Venezuela, Feb. 2, 1868; A. Goering). General colour above rufescent brown, the head like the back; wing-coverts like the back, the greater series with dusky blackish bars; quills dusky brown, externally a little darker rufous-brown than the back, chequered on the outer web with blackish bars, which in the inner secondaries extend across both webs; tail-feathers light rufous, barred with blackish brown, these bars broken and zigzag on some of the feathers; an indistinct eyebrow of greyish white; cheeks and ear-coverts greyish white, the latter distinctly streaked with blackish edgings to the feathers; sides of neck dull ashy grey washed with brown; throat white, paling into the fawn-colour of the rest of the under surface; centre of abdomen buffy white, as also the inside of the thighs; under wing-coverts and edge of wing dull whitish, with dusky bases to the feathers; quills dull brown below, greyish white along the edge of the inner web, fulvous towards the tip. Total length 5·5 inches, culmen 0·75, wing 2·55, tail 2, tarsus 0·9. (*Mus. Salvin and Godman.*)

The Venezuelan bird is specifically the same as that from Bogotá. The skin described is in better condition than that in the Museum from the last-named locality, and was made the subject of my description on that account. Certain slight differences exist in the Amazonian skins, such as the broader barring of the tail-feathers &c., and it is possible that there are other races yet to be determined.

Schomburgk's Wren inhabits Guiana, Venezuela, and Colombia, extending over the Upper Amazonian region into Bolivia.

| | | |
|---|---|---|
| *a*. Ad. sk. | Cayenne. | Baron Laugier. |
| *b*. Ad. sk. | Bogotá. | Purchased. |
| *c*. ♀ ad. sk. | Lower Ucayali, April 12, 1865. | E. Bartlett [C.]. |
| *d*. Ad. sk. | Bolivia. | Mr. Bridges [C.]. |

### 3. Thryophilus minor.

Thryothorus minor, *Pelz. Orn. Bras.* pp. 47, 66.
Troglodytes minor, *Gray, Hand-l. B.* i. p. 189, no. 2577.

*Adult.* Upper surface of body greyish olive, slightly washed with rufous, the rump and the tail more rufescent; the wings externally

* *Thryothorus audax*, Tschudi, Faun. Peruan. p. 185, appears to me to be a synonym of *T. leucotis*; but it is difficult to tell from the description alone.

uniform with the back, and, like the tail, transversely barred with black; the barring on the lesser upper wing-coverts * obsolete, in the rest of the wing and on the tail distinct, being $\frac{1}{4}$–$\frac{1}{2}$‴ broad on the first tail-feathers and as much as 1‴ on the outer ones; a superciliary streak produced to the nape, lores, sides of head, and throat white, the feathers of the ear-coverts obscurely edged; remainder of the under surface and under wing-coverts ferruginous, the middle of the breast albescent; upper mandible horny, its cutting-edges and the lower mandible pale. Total length 5 inches, culmen 0·7, wing 2·25, tail 2 (*Pelzeln*).

Pelzeln's Wren was discovered by the late Johann Natterer in the interior of Brazil at Matagrosso and on the Guaporé river. It is described by Herr von Pelzeln as being very close to *T. leucotis*, but smaller, with the upper surface greyish olive-brown, with very little admixture of reddish, and the under surface reddish buff, with the exception of the centre of the breast being white. The species is not represented in the British Museum, and it appears to be one of the numerous races of *T. leucotis* the exact definition of which has yet to be thoroughly worked out, the material at my disposal not being sufficient.

### 4. Thryophilus galbraithi.

Thryothorus, sp., *Cass. Pr. Philad. Acad.* 1860, p. 85.
Thryothorus albipectus, *Sclater & Salv. P. Z. S.* 1864, p. 345 (*nec Cass.*).
Thryothorus galbraithi, *Lawr. Ann. Lyc. N. Y.* vii. p. 320.
Thryophilus galbraithi, *Baird, Review Amer. B.* p. 131.
Troglodytes galbraithi, *Gray, Hand-l. B.* i. p. 190, no. 2595.
Thryophilus leucotis, *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 85 (*nec Lafr.*).

*Adult male* (Isthmus of Panama; M'Cleannan). General colour above olive-brown, becoming more rufescent on the lower back, rump, and upper tail-coverts, the latter of which have some faintly indicated blackish bars; head uniform with the back; wing-coverts like the back; greater coverts and quills rufescent brown on the outer webs, and barred with blackish brown, the inner secondaries barred across with blackish; tail-feathers light rufous, very broadly barred with black; eyelid and a tolerably distinct eyebrow white; a streak along the upper edge of the ear-coverts dark brown; ear-coverts dull white, the feathers faintly tipped with brown, scarcely perceptible; cheeks and throat white, the latter gradually paling off into the deep fawn-colour of the under surface; under wing-coverts and axillaries pale fawn-colour; quills dusky brown below, ashy fulvous along the edge of the inner web. Total length 5 inches, culmen 0·8, wing 2·45, tail 1·9, tarsus 0·95.

*Adult female*. Similar in colour to the male. Total length 5·1 inches, culmen 0·8, wing 2·35, tail 1·85, tarsus 0·95. (*Mus. Salvin and Godman.*)

The White-faced Wren is apparently confined to the State of

* *Rectricibus* in the original must be a misprint for *tectricibus*.

Panama, although a bird has been recorded by Herr von Pelzeln as this species from Central Brazil *.

| | | |
|---|---|---|
| *a*. Ad. sk. | Paraiso Station, Isthmus of Panama (*A. Hughes*). | O. Salvin, Esq. |
| *b*. Ad. sk. | Panama. | Purchased. |
| *c*, *d*. Ad. sk. | Panama. | M. Boucard. |

### 5. Thryophilus modestus.

Thryothorus modestus, *Cab. J. f. O.* 1860, p. 409; *Lawr. Ann. Lyc. N. Y.* viii. p. 5; *Scl. & Salv. P. Z. S.* 1864, p. 346, 1870, p. 836; *Salv. Ibis*, 1866, p. 205; *id. P. Z. S.* 1870, p. 181.
Thryothorus felix ?, *Salv. & Sclater, Ibis*, 1860, p. 397 (*nec Sclater*).
Thryothorus albipectus, *Sclater, Cat. Amer. B.* p. 20 (*pt., nec Cab.*).
Thryophilus modestus, *Baird, Rev. Amer. B.* p. 131; *Lawr. Ann. Lyc. N. Y.* ix. p. 92; *v. Frantz. J. f. O.* 1869, p. 291; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 83.
Thryothorus leucotis, *Lawr. Ann. Lyc. N. Y.* vii. p. 320 (*nec Lafr.*).
Troglodytes modestus, *Gray, Hand-l. B.* i. p. 190, no. 2594.

*Adult.* General colour above light brown, more dusky on the head; the wing-coverts uniform and like the back, the greater series and the quills dusky brown, externally reddish brown, a little more rufous than the back; upper tail-coverts rufous; tail-feathers dusky brown, edged with rufous and barred with blackish; a white eyebrow reaching from the base of the bill to the side of the nape, as well as the eyelid; ear-coverts ashy whitish; the upper edge dark brown, forming a streak; sides of neck ashy, streaked with white; cheeks and chin dull white; lower throat and fore neck light ashy; centre of breast and abdomen white; sides of body and thighs fawn-colour, deeper on the under tail-coverts; under wing-coverts and axillaries buffy whitish; quills dusky brown below, ashy along the edge of the inner web. Total length 5·1 inches, culmen 0·75, wing 2·25, tail 2·3, tarsus 0·9.

It is doubtful whether this species and its allies should be allowed full specific value, for in the series of specimens lent to me by Messrs. Salvin and Godman there are certain differences which seem to indicate that they are races of one and the same bird. Thus in Guatemalan examples the lower parts are deep rufous fawn-colour over the whole of the abdomen up to the lower breast, while the cheeks and ear-coverts are ashy whitish. In Panama skins (*T. galbraithi*) the sides of the face are purer white, and the flanks and under tail-coverts are very pale fawn-buff. In the race called

* Should this species ultimately prove distinct, it may bear Natterer's MS. name of *rufiventris*, as follows:—

THRYOPHILUS RUFIVENTRIS.

Thryothorus rufiventris, *Natt. MS. Cat. in Mus. Vindob.*
Thryothorus galbraithi, *Pelz. Orn. Bras.* p. 47 (*nec Lawr.*).

*Hab.* Interior of Brazil.

It is scarcely likely that the Brazilian bird will be the same as that from Panama.

*T. zeledoni* the general colour above is of an olive-brown cast or ashy, with a decided absence of rufous or fawn-colour, the whole underparts being white, with the flanks and under tail-coverts only fulvescent brown; there is a decided shade of ashy on the sides of the breast, and the cheeks are ashy white, streaked with dusky.

*T. leucotis* is scarcely more than a race of *T. modestus*, with the fawn-colour of the underparts extending up to the throat, which is buffy white; the bands on the wings and tail are much broader. *T. superciliaris* is yet another race, with a very much longer bill and the sides of face and underparts white.

The Central-American Wren inhabits Guatemala and Costa Rica, from 1000 to 6000 feet elevation.

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| *a*. Ad. sk. | Guatemala. | Osbert Salvin, Esq. [C.]. |
| *b*. Ad. sk. | Vera Paz, Guatemala. | Osbert Salvin, Esq. [C.]. |
| *c*. Ad. sk. | Costa Rica. | Mr. Van Patten [C.]. |
| *d*, *e*. ♀ ad. sk. | San José, Costa Rica. | A. Boucard, Esq. [C.]. |

### 6. Thryophilus zeledoni.

Thryophilus zeledoni, *Ridgw. Proc. U.S. Nat. Mus.* i. p. 252 (*ex Lawr. MS.*); *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 84.

*Adult* (type of species). General colour earthy brown, with a wash of greyish olive over the head and mantle; the lower back, rump, and upper tail-coverts lighter brown; wing-coverts like the back; greater coverts and quills externally rather more reddish brown, the primaries externally lighter brown; the aspect of the wing uniform, excepting for a few bars faintly indicated on the secondaries; tail-feathers brown, slightly margined with fulvous brown, and barred across with dusky blackish, some of the bars wavy and imperfect; a distinct white eyebrow from the base of the bill to the side of the nape; along the upper edge of the ear-coverts a broad streak of dusky brown; ear-coverts and sides of face ashy white, slightly streaked with dusky brown, with which colour the feathers are edged; cheeks and throat yellowish white, as also the centre of the breast and abdomen, the middle and sides of the breast ashy grey; flanks and sides of the body as well as the under tail-coverts fulvous brown; under wing-coverts and axillaries white, as well as the edge of the wings; quills dusky brown below, buffy whitish along the edge of the inner web. Total length 5·3 inches, culmen 0·8, wing 2·45, tail 2·2, tarsus 0·95. (*Mus. Smithson.*)

Zeledon's Wren replaces the foregoing species in the low-lying lands bordering the Atlantic coast of Costa Rica.

### 7. Thryophilus superciliaris.

Troglodytes striolatus?, *Eyton, Cat. Coll.* p. 132 (1856).
Thryothorus albipectus, *Sclater, P. Z. S.* 1860, p. 273 (*nec Cab.*).
Thryothorus superciliaris, *Lawr. Ann. Lyc. N. Y.* vol. ix. 1869, p. 235.

*Adult* (Island of Puna; Villagomez). General colour above rufous-brown, more dusky brown on the head and neck; wing-coverts like

the back, the median series with indications of dusky cross-barring, the greater coverts distinctly barred with blackish brown; quills sepia-brown, externally rufous-brown like the back, barred with blackish on the outer webs, the inner secondaries barred across both webs; tail light rufous, barred across with blackish brown, the bars somewhat broken, and zigzag in shape on some of the feathers; a very distinct white eyebrow running from the base of the bill to the sides of the nape; sides of the neck washed with ashy; a streak of brown along the upper edge of the ear-coverts; cheeks and ear-coverts pure white, as also the under surface of the body, which is washed with pale fawn-colour on the sides, deepening on the lower flanks and under tail-coverts; axillaries and under wing-coverts white below, faintly tinged with fawn-colour; quills dusky brown below, ashy fulvous along the edge of the inner web; "irides hazel; bill black above, flesh-coloured beneath; legs and feet blue" (*Frazer*). Total length 5·1 inches, culmen 0·9, wing 2·5, tail 2, tarsus 1.

The White-breasted Wren appears to be entirely confined to Ecuador.

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| *a*. Ad. sk. | Guayaquil. | Eyton Collection. |
| *b*. Ad. sk. | Island of Puna. | G. Barclay, Esq. [P.]. |
| *c*. Ad. st. | Island of Puna. | G. Barclay, Esq. [P.]. |

### 8. **Thryophilus guarayanus.**

Troglodytes guarayanus, *Lafr. et d'Orb. Rev. Zool.* 1837, p. 26; *d'Orb. Voy. Amér. mérid., Ois.* p. 203; *Gray, Gen. B.* i. p. 158; *Bp. Consp.* i. p. 222; *Gray, Hand-l. B.* i. p. 191, no. 2627.

Thryophilus fulvus, *Sclater, P. Z. S.* 1873, p. 781; *Scl. & Salv. P. Z. S.* 1879, p. 593.

*Adult*. Above reddish brown or dark fulvous brown; the head and neck uniform, but the mantle and back with obsolete dusky cross-barring; the rump and upper tail-coverts rather more chestnut than the back; wings a little more rufous than the back, mottled with dull blackish cross bars, more distinct on the greater coverts, and especially so on the quills, which are blackish on their inner webs and barred with black on the outer web, the innermost secondaries barred across both webs; tail-feathers chestnut-brown, numerously barred across with blackish, about twenty-nine or thirty being discernible on the central feathers; a broad eyebrow of pale fulvous feathers from the base of the nostrils to the side of the nape; eyelid white; sides of face reddish brown, with whitish bases and shaft-lines to the feathers of the ear-coverts; lores and upper edge of ear-coverts dusky reddish brown; throat and under surface of body buffy fawn-colour; the chin-feathers mottled with white bases; flanks and sides of body deeper reddish brown, with a few obsolete bars of blackish on the former; thighs and under tail-coverts deep fawn-colour, as also the under wing-coverts and axillaries; quills dark sepia-brown below, mottled with rufous along the edge of the inner web. Total length 4·8 inches, culmen 0·7, wing 2·3, tail 2·2, tarsus 0·95. (*Mus. Salvin and Godman.*)

The Bolivian Wren, as far as is known, only occurs in Bolivia. Although the type specimen of *T. guarayanus* of Lafr. & d'Orb. is not to be found in the Paris Museum, the description leaves little doubt of its identity with the species afterwards called *T. fulvus* by Dr. Sclater.

*a*. Ad. sk. Bolivia. Mr. Bridges [C.].

### 9. Thryophilus rufalbus.

Thriothorus rufalbus, *Lafr. Rev. Zool.* 1845, p. 337.
Troglodytes rufalbus, *Gray, Gen. B.* i. p. 158; *id. Hand-l. B.* i. p. 190, no. 2953.
Thryothorus rufalbus, *Bp. Consp.* i. p. 221; *Sclater, P. Z. S.* 1856, p. 140; *Scl. & Salv. Ibis*, 1859, p. 8; *iid. P. Z. S.* 1864, p. 345; *Cab. J. f. O.* 1860, p. 408; *Sclater, Cat. Amer. B.* p. 20; *Lawr. Ann. Lyc. N. Y.* viii. pp. 5, 175; *von Frantz. J. f. O.* 1869, p. 291; *Salv. P. Z. S.* 1870, p. 181.
Troglodytes cumanensis, *Licht. Nomencl. Av.* p. 34.
Thryothorus longirostris, *Lawr. Ann. Lyc. N. Y.* vii. p. 320 (*nec V.*).
Thryophilus rufalbus, var. rufalbus, *Baird, Review Amer. B.* p. 129.
Thryophilus rufalbus, var. poliopleura, *Baird, t. c.* p. 129.
Thryophilus rufalbus, *Lawr. Ann. Lyc. N. Y.* ix. p. 92; *Sclater & Salv. Nomencl. Av. Neotr.* p. 6; *Salv. & Godm. Ibis*, 1880, p. 116; *iid. Biol. Centr.-Amer., Aves*, i. p. 82.
Troglodytes poliopleurus, *Gray, Hand-l. B.* i. p. 190, no. 2599.

*Adult.* General colour above chestnut-rufous, rather duller on the head, the least and median series of wing-coverts like the back; greater and primary-coverts rufous like the back, faintly barred with blackish cross lines; quills dusky brown, the outer webs rufous barred with blackish, the inner secondaries barred across both webs, the outer primaries not externally barred; tail-feathers rufous, barred with blackish brown, the bars on the centre feathers narrower than on the outer ones; lores and a narrow eyebrow white, the feathers bordered with black, separating the eyebrow from the crown by a narrow black line; sides of face ashy white, the feathers edged with blackish, giving a narrowly streaked appearance; sides of neck broadly streaked with black and white; along the upper edge of the ear-coverts a streak of rufous-brown feathers; under surface of the body pure white, the sides of the body light rufescent brown, the sides of the breast and sides of the abdomen washed with a shade of ashy; under tail-coverts dull white, broadly barred across with black, slightly edged with rufous; under wing-coverts and axillaries white, mottled with blackish spots on the feathers; quills ashy brown, whitish along the edge of the inner web. Total length 5·75 inches, culmen 0·8, wing 2·65, tail 2·2, tarsus 0·95.

*Young.* Differs from the adult in being much darker and browner in colour above, with the bars on the secondaries and tail-feathers smaller and less defined; the under surface of the body is dull ashy grey with olive-brown margins to the feathers; under tail-coverts dull rufous-brown, uniform.

*Obs.* It is impossible to separate the Guatemalan bird (*Thryophilus poliopleurus*, Baird) from *T. rufalbus*. The more northern

birds certainly do seem a little more grey on the flanks, but there are others which do not differ in the least from specimens of South America, and it is therefore not possible to draw a line between them. A good deal of the grey shade below seems to be a relic of the immature plumage, as we find the young birds very grey underneath; while it is equally certain that white-breasted birds from Guatemala are not to be told from those of South America.

The Rufous-and-White Wren inhabits Guatemala in Central America, whence it extends to Colombia, Venezuela, and Trinidad.

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| *a*. Ad. sk. | Trinidad. | Purchased. |
| *b*. Ad. sk. | [Cayenne.] | Zoological Society. |
| *c*. Ad. sk. | Venezuela. | Purchased. |
| *d*. Ad. sk. | Paraiso station, Isthmus of Panama (*A. Hughes*). | O. Salvin, Esq. |
| *e*. Ad. sk. | Costa Rica. | Mr. Van Patten [C.]. |
| *f*. Imm. sk. | Retaluleu, Guatemala. | Osbert Salvin, Esq. [C.]. |
| *g*. Ad. sk. | Calobre, Veragua. | Mr. E. Arcé [C.]. |

## 10. Thryophilus sinaloa.

Thryophilus sinaloa, *Baird, Review Amer. Birds*, p. 130; *Lawr. Mem. Bost. Soc. Nat. Hist.* ii. p. 268; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 83.

Troglodytes sinaloa, *Gray, Hand-l. B.* i. p. 190, no. 2598.

*Adult male* (Mazatlan, June 1862; A. J. Grayson). General colour above reddish brown; wing-coverts like the back, with remains of light spots and darker bars on the median and greater series; bastard wing-feathers externally edged with buffy white; primary-coverts and quills brown, externally reddish brown, distinctly barred with darker brown, these bars being more distinct on the inner secondaries; upper tail-coverts lighter rufous than the back: tail-feathers light rufous, barred across with blackish brown, eight or nine bars being discernible on the tail; a distinct white eyebrow reaching from the base of the bill to the side of the nape; sides of neck brown streaked with white; ear-coverts dull white, slightly streaked with dusky brown, with which the feathers are edged; the upper edge of the ear-coverts brown, forming a distinct streak; throat, breast, and abdomen white, the sides of the body brown, slightly reddish in tint; the sides of the upper breast ashy grey; under tail-coverts white or fulvous, distinctly barred with black cross lines; under wing-coverts and edge of wing white; axillaries light fulvous brown; quills dusky brown below, ashy along the edge of the inner web. Total length 5·2 inches, culmen 0·65, wing 2·15, tail 2, tarsus 0·8. (*Mus. Salvin and Godman.*)

The Sinaloa Wren replaces *T. rufalbus* in Western Mexico.

## 11. Thryophilus pleurostictus.

Thryothorus pleurostictus, *Sclater, Ibis*, 1860, p. 30; *id. Cat. Amer. B.* p. 21, pl. 4; *Sel. & Salv. P. Z. S.* 1870, p. 551; *Lawr. Bull. U.S. Nat. Mus.* no. iv. p. 13.

Troglodytes pleurostictus, *Gray, Hand-l. B.* i. p. 189, no. 2570.
Thryophilus pleurostictus, *Lawr. Ann. Lyc. N. Y.* ix. p. 92; *von Frantz. J. f. O.* 1869, p. 291; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7; *Boucard, P. Z. S.* 1878, p. 51; *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 86.

*Adult.* General colour above clear umber-brown, slightly paler on the lower back and rump; wing-coverts like the back, the greater series and the quills barred with blackish, the inner webs of the quills uniform dusky brown, the innermost secondaries barred across like the greater wing-coverts; the primaries externally notched with pale rufous-brown; bastard-wing plumes externally white like the edge of the wing; tail-feathers light rufescent brown, barred regularly with black, the bars about ten in number, the light bars paler on the inner web of the outer feathers and inclining to whitish; a distinct white eyebrow, running from the base of the nostrils to the side of the nape, the white feathers edged with blackish, forming a narrow fringe between the eyebrow and the crown; lores dusky; cheeks and sides of face white, slightly streaked with narrow blackish edgings to the feathers, the upper margins of the ear-coverts slightly rufescent; sides of neck distinctly and broadly streaked with black and white; throat and centre of the body below white, the whole of the sides of the body distinctly banded with black, and slightly washed here and there with pale rufescent brown; thighs narrowly, but the under tail-coverts very broadly, barred with black; under wing-coverts and axillaries white, mottled with blackish spots and dusky bases to the feathers; quills dusky below, whitish along the inner web. Total length 5·2 inches, culmen 0·8, wing 2·45, tail 2·2, tarsus 0·85.

*Young.* Similar to the adult on the upper surface, but differing below, the ground-colour of the under surface being dull white, the throat slightly varied with dusky margins to the feathers, the breast streaked with dusky brown, with which some of the feathers are edged; the flanks ruddy brown, with a few dusky cross bars; thighs uniform rufous-brown; under tail-coverts fulvescent brown, tipped with white and indistinctly barred with dusky.

Sclater's Banded Wren is an inhabitant of the western side of Central America, from South-western Mexico to Honduras, Guatemala, Nicaragua, and Costa Rica.

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|---|---|---|
| *a, b.* Ad. sk. | Tehuantepec. | Dr. Sumichrast [C.]. |
| *c.* Juv. sk. | Tehuantepec. | Dr. Sumichrast [C.]. |
| *d.* Ad. sk. | Tehuantepec. | W. Wilson Saunders, Esq. |
| *e.* Ad. st. | Honduras. | Mr. Dyson [C.]. |

### 12. Thryophilus nisorius.

Troglodytes nisorius, *Licht., Mus. Berol. et Nomencl. Av. Berol.* p. 34 (*descr. nullâ*); *Cab. J. f. O.* 1863, p. 54.
Thryothorus nisorius, *Scl. P. Z. S.* 1869, p. 591, pl. 45.
Thryophilus nisorius, *Scl. & Salv. Nomenel. Av. Neotr.* p. 7; *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 87.

*Adult.* Above bright rufous, with the wings and tail regularly

banded across with black; an elongated white eyebrow; sides of head white variegated with black; under surface of body white, entirely barred across with black, almost as in *Sylvia nisoria*; under wing-coverts variegated with white and black; bill and feet horn-colour. Total length 5·5 inches, wing 2·7, tail 2·2, tarsus 0·85. (*Sclater, l. c.*: *type in Berlin Museum.*)

Deppe's Banded Wren is only known from the single specimen obtained at Real Ariba, Mexico, by Mr. Deppe.

### 13. Thryophilus thoracicus.

Thryothorus thoracicus, *Salv. P. Z. S.* 1864, p. 580, 1867, p. 134; *Lawr. Ann. Lyc. N. Y.* ix. p. 93.
Thryothorus brunneus, *Lawr. Ann. Lyc. N. Y.* viii. p. 179.
Troglodytes thoracicus, *Gray, Hand-l. B.* i. p. 190, no. 2591.
Thryophilus thoracicus, *Scl. & Salv. Nomencl. Av. Neotr.* p. 7; *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 86, tab. 6. figs. 1, 2.

*Adult* (Tucurriqui, Costa Rica, Oct. 1864; E. Arcé: type of species). General colour above brown, clearer and more cinnamon-brown on the lower back, rump, and upper tail-coverts, the latter being obscurely barred with blackish; wing-coverts like the back, the greater and primary-coverts barred with black on the outer web; bastard wing mottled with ashy on the outer webs of the feathers; quills dusky brown, externally light cinnamon-brown, barred with black, the inner secondaries banded across; centre tail-feathers light brown, barred rather broadly with black, the other tail-feathers uniform blackish on the inner web, the outer ones again light brown, barred with blackish, more narrowly and indistinctly than the centre feathers; eyelid and a narrow eyebrow white; ear-coverts and sides of neck streaked with black and white, the feathers being white edged with black rather broadly; cheeks, throat, and fore neck dull white, streaked with blackish, with which the feathers are edged; remainder of under surface light brown, the centre of the abdomen mottled with a few whitish feathers, barred with black; under tail-coverts yellowish white, narrowly barred across with black; under wing-coverts dull white, mottled with dusky blackish edgings to the feathers; quills dusky brown below, ashy whitish along the edge of the inner web. Total length 4·6 inches, culmen 0·8, wing 2·4, tail 1·7, tarsus 0·85. (*Mus. Salvin and Godman.*)

*Young* (Santiago de Veragua; E. Arcé). Differs from the adult in its more dingy coloration, the whole upper surface being of a dull cinnamon-brown colour; the under surface also of the same colour, with the throat and fore neck ashy, streaked with white centres to the feathers, these white streaks bordered with dull blackish; sides of face also ashy, streaked with white and black, but much more indistinctly than the adult. Total length 4·3 inches, culmen 0·7, wing 2·3, tail 1·75, tarsus 0·85. (*Mus. Salvin and Godman.*)

The Stripe-throated Wren has been found in Nicaragua and Costa Rica, and extends into Veragua.

### 14. Thryophilus semibadius.

Thryothorus semibadius, *Salv. P. Z. S.* 1870, p. 181.
Thryophilus semibadius, *Scl. & Salv. Nomencl. Av. Neotr.* p. 7; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 88, tab. vi. fig. 3.

*Adult* (type of species). General colour above uniform deep chestnut, the upper tail-coverts alone with a few blackish bars; wing-coverts blackish, with narrow wavy white cross lines on the lesser and median series, the greater coverts blackish, externally notched with white or reddish white, the inner secondaries reddish like the back, barred with black; primary-coverts blackish, with a slight notched edging of white; quills blackish brown, the primaries notched and the secondaries barred with light reddish brown, the notches on the primaries paler and more fulvescent; tail blackish, the feathers minutely notched on the outer web with buffy white, the outer feathers and the centre ones barred with the same; from the base of the bill to the sides of the nape a distinct line of white, bordered above with black, and forming an eyebrow; the lores white, edged with black, and encroaching on the forehead; sides of face white streaked with black, the feathers being edged with the latter colour, the upper margin of the ear-coverts black with tiny white streaks; throat white; remainder of under surface from the lower throat downwards white, profusely barred with blackish, the bars widening on the lower abdomen, flanks, and under tail-coverts, which are also slightly tinged with rufous; under wing-coverts and axillaries like the breast, but rather more narrowly barred; quills dusky brown below, ashy brown along the edge of the inner web. Total length 5·3 inches, culmen 0·85, wing 2·6, tail 2·1, tarsus 0·9. (*Mus. Salvin and Godman.*)

The Chestnut-backed Wren is only known from Panama.

*a.* Imm. sk. Bibalá, Panama. Mr. E. Arcé [C.].

### 15. Thryophilus castaneus.

Thryothorus nigricapillus ?, *Lawr. Ann. Lyc. N. Y.* vii. p. 293 (*nec Sclater*).
Thryothorus castaneus, *Lawr. Ann. Lyc. N. Y.* vii. p. 321; *Scl. & Salv. P. Z. S.* 1864, p. 346; *Salv. P. Z. S.* 1867, p. 134.
Thryophilus castaneus, *Baird, Review Amer. B.* i. p. 133; *von Frantz. J. f. O.* 1869, p. 291; *Scl. & Salv. Nomencl. Av. Neotr.* p. 6; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 88.
Troglodytes castaneus, *Gray, Hand-l. B.* i. p. 190, no. 2596.

*Adult.* Head, nape, and sides of neck black; general colour of the upper surface bright chestnut: least wing-coverts like the back; median and greater coverts blackish, rufous externally and at the ends, with a few blackish bars on the innermost of the latter series; quills blackish, externally notched with rufous, the secondaries barred with the same; tail-feathers black, barred with rufous on both webs of the centre feathers, the rest only barred on the

outer web, the outermost rectrices with a few bars near the tips of the inner web; lores white; fore part of eyelid and ear-coverts black, the latter mottled on the lower edge with white tips to the feathers, larger behind, and forming a patch behind the ear; upper and under edge of the eyelid and a very narrow superciliary streak above the eye white, the eyebrow slightly tinged with rufous; cheeks white, separated from the throat by a tolerably broad black moustachial streak; throat white, shading off into orange-rufous on the fore neck, which gradually merges into the orange-chestnut of the rest of the underparts; sides of the body, flanks, and under tail-coverts barred with blackish, more especially on the latter; axillaries like the breast, with faint blackish cross bars; under wing-coverts buffy whitish, with dusky bases to the feathers; quills brown below, faintly edged with rufous-buff. Total length 5·6 inches, culmen 0·9, wing 2·6, tail 2·3, tarsus 1.

*Young.* Differs from the adult in being duller coloured, but especially in having the feathers of the throat and fore neck edged with dusky brown. (*Mus. Salvin and Godman.*)

The Chestnut Wren is an inhabitant of the State of Panama.

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|---|---|---|
| *a*. Ad. sk. | Lion Hill, Isthmus of Panama. | J. McClellan, Esq. [C.]. |

### 16. Thryophilus costaricensis.

Thryophilus castaneus (*nec Lawr.*), *Lawr. Ann. Lyc. Nat. Hist. N. Y.* ix. p. 93; *Boucard, P. Z. S.* 1878, p. 51.

*Adult.* Very similar to *T. castaneus*, but deeper chestnut below, without the black cross bands of the last-named species: the white on the throat confined to the throat itself and not extending to the fore neck. Total length 5·5 inches, culmen 0·9, wing 2·8, tail 2·25, tarsus 1.

The differences between the Costa-Rican and Panama races of *T. castaneus* have already been pointed out by Messrs. Salvin and Godman (Biol. Centr.-Amer., Aves, i. p. 88): they seem scarcely to amount to specific distinctions, but render the birds recognizable as races.

The Costa-Rican Chestnut Wren replaces the foregoing species in Costa Rica.

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| *a*. Ad. sk. | Costa Rica. | M. A. Boucard [C.]. |

### 17. Thryophilus nigricapillus.

Thryothorus nigricapillus, *Sclater, P. Z. S.* 1860, p. 84; *id. Cat. Amer. B.* p. 21.

Thryophilus nigricapillus, *Cass. Pr. Philad. Acad.* 1860, p. 193; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7; *id. P. Z. S.* 1879, p. 493; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 89.

Thryophilus schottii, *Baird, Review Amer. B.* i. p. 133.

Troglodytes nigricapillus, *Gray, Hand-l. B.* i. p. 189, no. 2569.

*Adult male.* General colour above chestnut, the least wing-

coverts like the back; greater coverts chestnut, barred across irregularly with blackish; primary-coverts blackish, externally notched with rufous; quills blackish, the primaries notched, the secondaries barred with rufous, the inner secondaries barred across; tail-feathers blackish brown, barred with rufous, about ten light bars being discernible on the centre feathers; head and hind neck black, the feathers on the latter part edged with chestnut; a tolerably broad white eyebrow from the base of the bill to the side of the nape; lores black, as also a band across the upper edge of the ear-coverts; sides of face and ear-coverts white, narrowly streaked with black, with which the feathers are edged; chin white, the remainder of the under surface dull white, the flanks, lower abdomen, and under tail-coverts rufous: all the lower surface barred across with blackish, very narrowly on the throat and fore neck, and more broadly on the flanks; under wing-coverts and axillaries white, barred with blackish; quills dusky below, ashy fulvous along the edge of the inner web. Total length 5·5 inches, culmen 0·85, wing 2·8, tail 2·2, tarsus 0·95.

The Black-capped Wren is found in Western Ecuador and Colombia, ranging into the State of Panama, where it has been found at Truando.

| | | |
|---|---|---|
| *a*. Imm. sk. | Nanegal, Ecuador. | L. Fraser, Esq. [C.]. |
| *b*. ♂ ad. sk. | Santa Elena, Colombia. | T. K. Salmon, Esq. [C.]. |

## 31. THRYOTHORUS.

Type.

Thriothorus, *Vieill. Analyse*, p. 45 (1816) ..... T. ludovicianus.
Pheugopedius, *Cab. Mus. Hein.* Th. i. p. 79 (1850). T. genibarbis.

Cf. *Baird, Review Amer. B.* pp. 120–127; *Salvin & Godman, Biol. Centr.-Amer., Aves*, i. p. 89.

Head of *Thryothorus ludovicianus*.

*Range.* From the Southern United States and California, through the whole of Central America and South America, to Southern Brazil and Bolivia.

*Key to the Species.*

*a*. Throat uniform.
  *a'*. Wings externally barred.
    *a''*. Rump with half-concealed spots of white or buff.
      *a'''*. Throat white or buffy white.
        $a^4$. Sides of neck mottled or streaked with black and white behind the

ear-coverts; eyebrow very long and mottled with black, reaching to the hinder neck.

$a^5$. Tail reddish, with dusky cross bars; back reddish.

$a^6$. Under tail-coverts creamy buff, or buff barred with black; under surface creamy buff or fulvous brown; bars on the tail 14 or more: bill not exceeding 0·75 inch, wing 2·4 inches.

$a^7$. Beneath yellowish white, washed occasionally with rusty; sides plain: bill from nostril 0·45 inch. Length 6 inches ..... *ludovicianus*, p. 221.

$b^7$. Beneath rufous, lighter on the throat and along the median line; sides obsoletely barred with dusky: bill from nostril 0·56 inch. Length 5·25 inches *berlandieri*, p. 222.

$c^7$. Culmen 0·9 inch; wing 2·75 inches ..... *miamensis*, p. 222.

$b^6$. Under tail-coverts rufous, with a few dusky cross bars, contrasting with the breast and abdomen, which are white; bars on tail not more than 12: bill 0·85 inch, wing 2·2–2·5 inches { *mesoleucus*, p. 223. *musicus*, p. 223.

$b^5$. Tail dark ashy brown, with dusky cross bars; back umber-brown; under tail-coverts white, broadly barred with black ..... *albinucha*, p. 224.

$b^4$. Sides of neck uniform ashy grey; eyebrow shorter and not extending beyond the nape, pure white, not mixed with black streaks ..... { *bewickii*, p. 225. *spilurus*, p. 225. *bairdi*, p. 226. *brevicauda*, p. 227.

$b'''$. Throat rufous, like the rest of the under surface ..... { *martinicensis*, p. 228. *rufescens*, p. 228. *grenadensis*, p. 228.

$b''$. Rump without the half-concealed white spots.

$c'''$. Abdomen black, barred with white or buffy white.

$c^4$. Ear-coverts white, narrowly streaked with dusky, the upper margin blackish..... *fasciativentris*, p. 229.

$d^4$. Ear-coverts uniform dusky black .. *albigularis*, p. 230.

$d'''$. Abdomen black, not barred across at all; ear-coverts whitish, with the upper margin dusky black ..... *melanogaster*, p. 230.

$b'$. Wings uniform, not barred externally.

$c''$. Throat and breast black; belly reddish brown ..... *atrigularis*, p. 231.

$d''$. Throat white.

$e'''$. Under tail-coverts white, barred with black; back light brown, the head

more rufous; sides of neck broadly streaked with black and white, like ear-coverts and sides of the head .... *felix*, p. 232.

*f'''*. Under tail-coverts uniform fulvous or reddish brown, with blackish cross bars; back light or dark chestnut-red, the head more dingy; sides of neck not streaked with black and white. *lawrencii*, p. 232.

*e*⁴. With a distinct moustachial streak of black, the cheeks and throat being white, with a broad malar streak of black between.

*c*⁵. Larger: wing 2·8 inches. Under tail-coverts uniform, or with a few dusky bars near the tips of the feathers; tail rufous, with narrow black bars ..... *mystacalis*, p. 233.

*d*⁵. Smaller: wing 2·45 inches. Under tail-coverts fawn-colour, with rather broad dusky blackish bars; tail-feathers dark ashy brown, broadly banded with black..... *genibarbis*, p. 233.

*f*⁴. With no moustache at all; the cheeks black, like the moustache and sides of face; the ear-coverts with a few white streaks.

*e*⁵. Sides of face jet-black, with a few white streaks; back chestnut; head dusky; throat white; chest orange-rufous: under tail-coverts fulvous, barred with black..... *coraya*, p. 234.

*f*⁵. Sides of face ashy blackish, with a few white streaks; back chestnut; head dusky; throat ashy white; chest light ashy..... *amazonicus*, p. 235.

*g*⁵. Sides of face ashy blackish, with a few white streaks; back chestnut; head like the back, rufous, only a little duller; chest ashy grey ..... *griseipectus*, p. 236.

*b*. Throat spotted or barred, as well as the fore neck and chest.

*c'*. Larger: culmen 0·95 inch, wing 2·7. Colour above bright chestnut; tail nearly uniform; under tail-coverts uniform..... *euophrys*, p. 236.

*d'*. Smaller: culmen 0·7–0·75 inch, wing 2·1–2·35. Colour above reddish brown, the head more rufous; tail regularly banded; under tail-coverts barred.

*e''*. Throat spotted; fore neck and chest richly barred with black; bands on tail 12 or 13 ..... *maculipectus*, p. 237.

*f''*. Throat, fore neck, and chest white, with a few bars of dusky blackish; bars on tail 8..... *paucimaculatus*, p. 238.

*g''*. Throat barred across, like the fore neck and chest ..... *sclateri*, p. 238.

*c*. Throat barred; fore neck and chest uniform.
*e'*. Centre of breast white, contrasting with orange chest..... *rutilus*, p. 238.
*f'*. Centre of breast grey, contrasting with orange chest..... *hypospodius*, p. 239.
*g'*. Centre of breast orange-rufous, a little paler than the chest..... *hypcrythrus*, p. 239.

### 1. Thryothorus ludovicianus.

Roitelet de la Louisiane, *Daubent. Pl. Enl.* vi. pl. 33.
Troglodyte de la Louisiane, *Montb. Hist. Nat. Ois.* v. p. 361.
Sylvia ludoviciana, *Lath. Ind. Orn.* ii. p. 548.
Motacilla caroliniana, *Bartram, Trav. Florida*, p. 291.
Motacilla ludovisiana, *Turton, Syst. Nat.* i. p. 613.
Troglodytes arundinaceus, *Vieill. Ois. Amér. Sept.* ii. p. 55, pl. cviii.
Certhia caroliniana, *Wils. Amer. Orn.* ii. p. 61, pl. xii. fig. 5; *Jard. ed. Wils. Amer. Orn.* i. p. 210.
Thryothorus littoralis, *Vieill. Nouv. Dict. d'Hist. Nat.* xxxiv. p. 56.
Troglodytes ludovicianus, *Licht. Verz. Doubl.* p. 35; *Audub. B. Amer.* i. pl. lxxviii.; *id. Orn. Biogr.* i. p. 339; *Gray, Gen. B.* i. p. 158; *id. Hand-l. B.* i. p. 189, no. 2567.
Thryothorus ludovicianus, *Bp. Comp. List B. Eur. & N. Amer.* p. 11; *id. Consp.* i. p. 220; *Scl. Cat. Amer. B.* p. 20 (pt.); *Baird, Review Amer. B.* p. 123.
Thryothorus arundinaceus, *Less. Rev. Zool.* 1840, p. 262.
Thryothorus ludovicianus, var. ludovicianus, *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* i. p. 142, pl. 9. fig. 1; *Coues, B. Color. Vall.* p. 168.

*Adult male*. General colour above rufous, the mantle and hind neck streaked with narrow whitish shaft-lines; scapulars and rump mottled with half-concealed spots of white, these spots edged with blackish; upper tail-coverts like the back, with a few nearly obsolete dusky bars; tail-feathers rufous, narrowly barred with dusky blackish, the outer feathers whitish on the light bars, the others whitish at the outer edge of the lighter bars; lesser wing-coverts like the back; median series with narrow shaft-streaks and a terminal spot of dull white; greater coverts rufous, numerously barred with dusky brown and minutely spotted with white at the tip; quills dusky brown, the secondaries rufous, banded across with dusky, the primaries externally chequered with pale fulvous or white notches; lores and a tolerably broad eyebrow yellowish white, separated from the crown by a narrow line of blackish, with which the superciliary feathers are edged; sides of neck mottled with yellowish-white spots, which are further varied by blackish spots and edgings; cheeks, sides of face, and ear-coverts yellowish white, the latter with a few minute spots of black, the upper edge of the ear-coverts rufous; under surface of body yellowish white, a little clearer on the sides of the body; thighs rufous-brown; under tail-coverts white, barred across with black; under wing-coverts and axillaries yellowish white, those near the edge of the wing barred with black; quills dusky brown below, yellowish white

along the edge of the inner web. Total length 5·4 inches, culmen 0·75, wing 2·4, tail 2, tarsus 0·85.

The Great Carolina Wren inhabits the eastern province of the United States, from Florida to Maryland and from the Atlantic to Kansas and the valley of the Rio Grande.

| | | | |
|---|---|---|---|
| *a*. ♂ ad. sk. | District, Columbia, U.S.A., April 2, 1877 (*P. L. Young*). | | Smithsonian Institution. |
| *b*. Ad. sk. | [North America.] | | Purchased. |
| *c*. Ad. st. | [North America.] | | Major-Gen. Hardwicke [P.]. |
| *d*. Ad. sk. | [North America.] | | Purchased *. |

### 2. Thryothorus berlandieri †.

Thryothorus berlandieri, *Baird, in B. N. Amer.* 1858, p. 362, pl. lxxxiii. fig. 1 (*ex Couch, MSS.*); *id. Review Amer. B.* p. 124; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 94.

Troglodytes berlandieri, *Gray, Hand-l. B.* i. p. 189, no. 2571.

Thryothorus ludovicianus, var. berlandieri, *Coues, Key N. Amer. B.* p. 86; *id. B. N.-West*, p. 29; *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* i. p. 144, pl. 9. fig. 2; *Coues, B. Color. Vall.* p. 168; *Merrill, Pr. U.S. Nat. Mus.* i. p. 121.

Troglodytes ludovicianus berlandieri, *Sennett, Bull. U.S. Nat. Mus.* i. p. 121.

*Adult.* Very similar to *T. ludovicianus*, but distinguished by its deeper-coloured lower parts, these being fulvous from the middle of the throat to the anus, more rufescent on the flanks, which are obsoletely barred under some lights; the fulvous neck leaves the ear-coverts and upper throat and chin in strong contrast, appearing silvery white, the chin and throat duller white. In *T. ludovicianus* there is no difference between the colour of the sides of face and the underparts. Total length 5·8 inches, culmen 0·7, wing 2·25, tail 2, tarsus 0·9.

Berlandier's Wren replaces the foregoing species in the Lower Rio Grande valley, and also probably extends into Texas.

| | | |
|---|---|---|
| *a*. Ad. sk. | North America. | Baron Laugier de Chartrouse. |

### 3. Thryothorus miamensis.

Thryothorus ludovicianus, var. miamensis, *Ridgw. Amer. Nat.* ix. p. 469.

"Similar to *T. ludovicianus*, but larger, stouter, and more deeply coloured. Above rusty chestnut, most castaneous on the back, and becoming browner on the forehead. Wings and tail with indistinct, narrow dusky bars, and rump with concealed white spots; a white postocular stripe of dark rusty on the upper half of the auriculars, running back into the rusty of the nape. Below deep rusty ochra-

* Said to come from Jamaica.

† For full synonymy of this and the other North-American Wrens, see Coues, B. Color. Valley, p. 168.

ceous, the sides and flanks showing indistinct bars of darker rusty; chin and crissum soiled whitish, the latter banded with dusky black; a continuous superciliary stripe of pale ochraceous, bordered above by a blackish line along each side of the pileum; cheeks greyish soiled white, with faint crescentic bars of dusky. Bill dusky, the superior tomium and lower mandible pale (lilaceous in life?); feet pale horn-colour. Wing 2·75 inches, tail 2·60, culmen 0·90, tarsus 0·95, middle toe (without the claw) 0·60. In coloration this strongly-marked form closely resembles *T. berlandieri*, Baird, of the lower Rio Grande (see Hist. N. Am. B. i. p. 144, pl. ix. fig. 2); but the size is greatly larger than even the most northern examples of *ludovicianus* proper, while *berlandieri* is smaller." (*Ridgway.*)

Maynard's Wren has been recently discovered on the Miami River in Eastern Florida.

### 4. Thryothorus mesoleucus.

Thryothorus mesoleucus, *Sclater, P. Z. S.* 1876, p. 14.

*Adult* (S. Lucia; J. Semper: type of species). General colour above reddish brown, the head a little more dusky, the rump varied with half-concealed spots of white; scapulars and wing-coverts like the back, with obsolete dusky barrings; remainder of the wing-coverts reddish brown, with distinct dusky blackish bars; quills brown, externally reddish brown barred with dusky blackish, the inner secondaries entirely dull reddish brown, barred across with blackish; the primaries externally chequered with small rufescent notches; tail dark reddish brown, with distinct cross bars of black, about eight in number; lores whitish, as also apparently a narrow eyebrow; car-coverts pale reddish brown: cheeks, sides of face, and under surface of body white; the sides of the breast, flanks, and thighs reddish brown; under tail-coverts deep rufous, tipped with white and crossed with a few bars of dusky blackish; under wing-coverts white, washed with ashy fulvous; axillaries light rufous, like the sides of the body; quills dusky brown below, ashy along the edge of the inner web. Total length 4 inches, culmen 0·85, wing 2, tail 1·45, tarsus 0·7. (*Mus. P. L. Sclater.*)

Semper's Wren is an inhabitant of the island of Santa Lucia, in the West Indies, and is no doubt confined to it.

### 5. Thryothorus musicus.

Thryothorus musicus, *Lawr. Ann. N. Y. Acad. Sci.* vol. i. p. 148 (1878); *id. Proc. U.S. Nat. Mus.* vol. i. pp. 189, 486.

*Male.* Above of a dark ferruginous, somewhat darker on the crown and brighter on the rump; lores and a line running back from the eye white, tinged with rufous: the exposed portions of the wings are dark rufous, conspicuously barred with black; the inner webs of the primaries are blackish brown; under wing-coverts white; the tail-feathers are dark rufous, barred with black;

the entire back and upper tail-coverts are marked inconspicuously with narrow transverse dusky lines; the feathers of the rump have concealed white shaft-stripes, which become wider towards the ends of the feathers; the feathers of the back also have the basal portion of their shafts marked with white; the throat, breast, and middle of the abdomen are white, the latter tinged with rufous; the sides are light ferruginous; the under tail-coverts are rufous, each feather marked with a subterminal round black spot; upper mandible black; the under whitish, with the end dusky; tarsi and toes light brownish flesh-colour. Length $5\frac{1}{2}$ inches, wing $2\frac{1}{2}$, tail $1\frac{1}{16}$, tarsus $\frac{3}{4}$. (*Lawrence.*)

The St.-Vincent Wren is confined to the island of that name. The British Museum does not contain a specimen of this bird, which is apparently not represented in any European collection. Mr. Lawrence remarks:—"In its white under-plumage this species somewhat resembles *T. mesoleucus*, Scl., from St. Lucia; but it is bright rufous above instead of earthy brown, and the flanks are light ferruginous instead of fulvous; it is also of larger dimensions. The transverse markings on the back and the round black spots on the crissum are strong characteristics."

### 6. Thryothorus albinucha.

Troglodytes albinucha, *Cabot, Proc. Bost. Soc. Nat. Hist.* ii. p. 258.
Thryothorus petenicus, *Salv. P. Z. S.* 1863, p. 187; *Baird, Review Amer. B.* p. 125.
Thryothorus albinucha, *Baird, Review Amer. B.* p. 149; *Salv. Ibis,* 1866, p. 191; *Lawr. Ann. Lyc. N. Y.* ix. p. 199; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7; *Salv. & Godm. Biol. Cent.-Amer., Aves,* i. p. 94, tab. vii. fig. 2.
Troglodytes petenica, *Gray, Hand-l. B.* i. p. 189, no. 2572.

*Adult* (type of *T. petenicus*, Salv.; Sakluk, near Peten, Guatemala). General colour above bright umber-brown, a little more reddish on the lower back and rump, the latter being distinctly varied with half-concealed ovate spots of white, edged with black; wing-coverts like the back, the lesser and median series slightly more ashy, the greater coverts obsoletely barred with dusky; quills brown, externally rufous-brown, barred with dusky on the outer web, the primaries externally chequered with fulvous notches; upper tail-coverts fulvous brown, narrowly barred with dusky blackish; two centre tail-feathers dark ashy brown, with about eight blackish cross bars, which are not complete and are generally broken up into spots; the remainder of the tail-feathers blackish, ashy brown externally, towards the base barred with black, the outermost feathers with pale ashy tips, barred with black, the outer feather notched with white on the outer web; a very distinct eyebrow from the base of the nostril to the sides of the neck, the eyebrow separated from the crown by a narrow line of black, formed by the black margins to the feathers; sides of neck mottled with white and black streaks in continuation of the eyebrow; lores dull white;

ear-coverts also dull white, slightly obscured by dusky margins to the feathers; the upper edge of the ear-coverts rufous-brown; cheeks and under surface of body fulvescent, whitish on the throat and centre of the breast and abdomen; flanks deep fulvous brown, with a few indistinct blackish cross bars; thighs fulvous brown; under tail-coverts white, broadly barred with black; under wing-coverts and axillaries dull white, those near the edge of the wing mottled with brown bases; quills dull brown below, whitish or buffy white along the edge of the inner web. Total length 5·2 inches, culmen 0·85, wing 2·3, tail 2·2, tarsus 0·85. (*Mus. Salvin and Godman.*)

Cabot's Wren appears to be confined to the promontory of Yucatan and the adjoining district of Peten.

### 7. Thryothorus bewickii.

Troglodytes bewickii, *Audub. B. Amer.* pl. xviii.; *id. Orn. Biogr.* i. p. 96; *Audub. B. Amer.* 8vo, ii. p. 120, pl. 118; *Gray, Gen. B.* i. p. 158; *id. Hand-l. B.* i. p. 190, no. 2602.

Thryothorus bewickii, *Bp. Comp. List B. Eur. & N. Amer.* p. 11; *id. Consp.* i. p. 221; *Baird, B. N. Amer.* 1858, p. 363; *Dresser, Ibis*, 1865, p. 464; *Butcher, Pr. Phil. Acad.* 1868, p. 149; *Coues, Key N. Amer. B.* p. 86; *id. B. N.-W.* p. 31.

Telmatodytes bewickii, *Cab. Mus. Hein.* Th. i. p. 78.

Thryomanes bewickii, var. bewickii, *Baird, Review Amer. B.* p. 126.

Thryothorus bewickii, var. bewickii, *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* p. 145, pl. 9. fig. 3.

Above dark rufous-brown; rump and middle tail-feathers sometimes a little paler and very slightly tinged with grey, and, together with the exposed surface of secondaries, distinctly barred with dusky. Beneath soiled plumbeous whitish; flanks brown. Crissum banded; ground-colour of quills and tail-feathers brownish black. Length 5·50 inches, wing 2·25, tail 2·50; length of bill from nostril 0·39, along gape 0·70. (*Baird, Brewer, and Ridgway.*)

Bewick's Wren, in its typical form, inhabits the South-eastern United States as far west as Texas.

### 8. Thryothorus spilurus.

Troglodytes bewickii, *Towns. Journ. Philad. Acad.* vii. p. 193 (*nec Audub.*).

Troglodytes spilurus, *Vigors, Zool. Beechey's Voy.* p. 18, pl. 4. fig. 1; *Gray, Gen. B.* i. p. 158; *Bp. Consp.* i. p. 222.

Thryomanes bewickii, var. spilurus, *Baird, Rev. Amer. B.* p. 126.

Thryothorus bewickiii, *Brown, Ibis*, 1868, p. 421.

Thryothorus spilurus, *Cooper, B. Calif.* p. 69.

Thryothorus bewickii, var. spilurus, *Coues, Key N. Amer. B.* p. 86; *id. B. N.-West*, p. 31; *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* p. 147.

*Adult male* (Eldorado City; A. Forrer). General colour above brown, excepting on the sides of the neck, which are ashy grey; lower back and rump clearer brown than the back, and a little more reddish, prettily varied with half-concealed subterminal spots of

white ; upper tail-coverts and centre tail-feathers pale brown, barred across with blackish brown, about fifteen bars being apparent on the tail-feathers; the next feathers blackish brown on the inner web, light brown on the outer one, barred with black ; remainder of the tail-feathers blackish brown, tipped with ashy white at the ends, increasing in extent on the external feathers, which are mottled on the outer web with more or less complete bars of black ; wing-coverts uniform brown, like the back ; quills dusky brown, with paler brown margins, the secondaries barred with dusky brown on the outer web, the inner secondaries barred right across ; a very distinct white eyebrow extending from the base of the bill to the sides of the nape ; lores dull white ; in front of the eye a dusky spot ; ear-coverts ashy white, streaked with dark brown, the upper part entirely brown, forming a conspicuous patch ; under surface of body dull white, the sides of the body ashy grey ; under tail-coverts dull white, barred across with blackish brown, with here and there a slight tinge of reddish brown ; thighs dark ashy brown ; axillaries light ashy ; under wing-coverts white, slightly mottled with brown bases ; quills dusky brown below, buffy white along the edge of the inner web ; "iris brown" (*A. Forrer*). Total length 4·2 inches, culmen 0·6, wing 1·9, tail 1·7, tarsus 0·7.

*Young.* Differs from the adult merely in having the feathers of the throat and breast very narrowly and inconspicuously edged with blackish (*Baird*).

Vigors's Wren is a Western form of *T. bewickii*, and is apparently confined to California.

| | | |
|---|---|---|
| *a.* Ad. sk. | British Columbia. | J. K. Lord, Esq. [C.]. |
| *b, c.* Ad. sk. | California. | Purchased. |
| *d.* ♂ ad. sk. | Greenwood valley, Eldorado city, California, March 11th. | A. Forrer [C.]. |

### 9. **Thryothorus bairdi.** (Plate XIII.)

Thryothorus bewickii (*nec Audub.*), *Sclater, P. Z. S.* 1859, p. 372 ; *id. Cat. Amer. B.* p. 22 ; *Coues, Ibis*, 1865, p. 164 ; *Scl. & Salv. Nomenel. Av. Neotr.* p. 7 ; *Dugès, La Nat.* i. p. 139 ; *Sennett, Bull. U.S. Geol. Surv.* iv. p. 9.

Thryomanes bewickii, var. leucogaster, *Baird, Review Amer. B.* p. 127 ; *Merrill, Pr. U. S. Nat. Mus.* i. p. 121 ; *Hensh. in Wheeler's Rep. Geol. Surv.* v. pl. 1. fig. 1 (1877).

Thryothorus leucogaster, *Cooper, Amer. Nat.* 1869, iii. pp. 474, 479.

Thryothorus bewickii, var. leucogaster, *Coues, Key N. Amer. B.* p. 86 ; *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* p. 147 ; *Lawr. Mem. Bost. Soc. N. Hist.* ii. p. 268 ; *id. Bull. U.S. Nat. Mus.* no. iv. p. 14.

Thryothorus bewickii leucogaster. *Coues, B. Color. Vall.* p. 169.

Thryothorus bairdi, *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 95.

*Adult female.* General colour above mouse-brown, slightly washed with rufous on the lower back and rump, which are mottled with half-concealed white spots ; upper tail-coverts ashy brown ; lesser wing-coverts ashy brown ; the remainder like the back ; quills dusky brown, with slight indications of dusky bars on the outer webs, and especially on the inner secondaries, the primaries slightly chequered with dull white on the outer web ; tail-feathers ashy grey, with

about twenty bars of black on the centre feathers, these bars not always complete; remainder of the tail-feathers black, tipped with grey (with dusky bars on these grey ends), and near the base washed externally with ashy grey and barred with black; the outermost feather notched with white distinctly on the outer web, and having a broader ashy-grey tip; a very distinct eyebrow from the base of the nostril and the sides of the nape; lores dusky; eyelid white; ear-coverts dusky brown, streaked with white; cheeks and under surface of body white; sides of neck ashy grey; sides of breast and flanks light ashy, as also the thighs; under tail-coverts white, barred across with black, on which is a slight tinge of reddish occasionally; under wing-coverts white, with dusky bases to the feathers near the outer edge; quills light brown below, ashy along the edge of the inner web. Total length 5·5 inches, culmen 0·7, wing 2·25, tail 2·3, tarsus 0·75.

Baird's Wren may be considered a distinct race of *T. bewickii*, which it replaces in Mexico and in the valleys of the Rio Grande and Colorado.

| | | |
|---|---|---|
| *a*. ♀ ad. sk. | Puebla, Mexico. | M. A. Boucard [C.]. |
| *b*. Ad. sk. | Mexico. | M. A. Boucard [C.]. |

### 10. Thryothorus brevicauda.

Thryomanes brevicauda, *Ridgw. Bull. U.S. Geol. & Geogr. Surv.* ii. p. 186.

*Adult.* Above greyish hair-brown, brownest on the rump, greyest on the tail; remiges just perceptibly, and tail-feathers light dull grey terminally, with one or two broad dusky bars across the anterior portion of the grey. A very conspicuous white superciliary stripe from the nostril to the occiput; below this a greyish-brown stripe, covering the lores and widening on the upper posterior portion of the auriculars. Lower parts white anteriorly, passing gradually into dull ash-grey on the sides and abdomen; crissum broadly barred with black. Wing 1·85–1·90 inch, tail 1·80, bill 0·45–0·50, tarsus 0·70–0·75, middle toe 0·50. (*Ridgway.*)

Mr. Ridgway writes:—"This Wren appears to bear about the same relation to *T. bewicki leucogaster** that *Junco insularis* does to *J. annectens*: and it is a curious fact that the analogue of each should be the form from the interior of the continent instead of that from the neighbouring coast. This insular form is much greyer than the *T. bewicki spilurus* of California and Western Mexico, and presents other decided differences from all the continental forms." Mr. Ridgway then gives some measurements of specimens of the two forms, showing how greatly they differ in dimensions and proportions, the difference from *T. bewicki leucogaster* being still more conspicuous.

The Guadeloupe House-Wren is only known from Guadeloupe Island, off the southern coast of California.

* *Thryothorus bairdi* of this work.

### 11. Thryothorus martinicensis.

Thryothorus martinicensis, *Sclater, P. Z. S.* 1866, p. 321; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7; *Lawr. Proc. U.S. Nat. Mus.* vol. i. pp. 352, 486.

*Adult* (type of species). Upper surface dark umber-brown, inclining to reddish brown on the lower back and rump, the latter with half-concealed spots of white margined with black; the mantle with mesial streaks of brownish buff; wing-coverts like the back, with obsolete dusky cross-barring, the greater series more distinctly barred with dusky; quills dusky brown, externally rufous-brown, barred with dusky; tail dull brown, externally edged with rufous-brown, barred across with dusky brown; a very narrow reddish eyebrow from the base of the nostril to the side of the nape; lores brownish white; ear-coverts light reddish, with pale shaft-lines, the feathers edged with dusky, imparting a somewhat streaked appearance; cheeks and under surface of body deep rufous-brown, rather darker on the flanks, which have a few blackish bars; under tail-coverts rufous, barred with black; axillaries lighter reddish brown than the breast; under wing-coverts pale reddish, mottled with dusky bases to the feathers; quills dusky brown below, ashy whitish along the edge of the inner web. Total length 4·8 inches, culmen 0·75, wing 2·2, tail 1·55, tarsus 0·85. (*Mus. P. L. Sclater.*)

The Martinique Rufous Wren is only known from the island of Martinique, one of the Lesser Antilles.

*a*. Ad. sk. Martinique, Paris Museum [P.].

### 12. Thryothorus rufescens.

Thryothorus rufescens, *Lawr. Ann. N. Y. Acad. Sci.* i. p. 47; *id. Proc. U.S. Nat. Mus.* i. pp. 453, 486.

*Male*. Entire plumage rufous, much deeper in colour above, of a lighter and brighter shade underneath; tail dark rufous, regularly and closely crossed with narrow bars of black; the colouring of the underpart of the tail is duller, but is barred in a similar manner; inner webs of quills blackish brown; outer webs and both webs of the innermost secondaries dark rufous, with distinct narrow bars of black; upper mandible dark brown, the under yellowish white; feet pale brown. Length $4\frac{7}{8}$ inches, wing $2\frac{1}{8}$, tail $1\frac{5}{8}$, tarsus $1\frac{1}{16}$; bill from front $\frac{9}{16}$, from rictus $\frac{3}{4}$. (*Lawrence.*)

Lawrence's Rufous Wren inhabits the island of Dominica, in the Lesser Antilles. It is scarcely to be distinguished from *T. martinicensis*, Sclater, from Martinique; and on comparison of a series the two species will probably prove to be identical.

### 13. Thryothorus grenadensis.

Thryothorus grenadensis, *Lawr. Ann. N. Y. Acad. Sci.* i. p. 161; *id. Proc. U.S. Nat. Mus.* i. pp. 268, 486.

*Female*. Upper plumage of a rather bright ferruginous, a little inclining to brownish on the head and hind neck, and brighter on the rump; lores whitish, tinged with rufous; a light rufous stripe extends over the eye to the hind neck; tail dull rufous, barred with black; the primary quills have their outer webs of a dull light rufous, with broad black bars; the inner webs are brownish black; the wing-coverts and tertials are rufous, with narrower black bars; under wing-coverts pale rufous; the throat is very pale rufous, inclining to whitish; the breast light rufous; the middle of the abdomen is of a rather paler shade; the sides and under tail-coverts are of a bright darker ferruginous; the upper mandible brownish black, the under pale yellow, dusky at the tip; tarsi and toes hazel-brown. Length $4\frac{3}{4}$ inches, wing $2\frac{1}{4}$, tail $1\frac{1}{2}$, tarsus $\frac{3}{4}$, bill from front $\frac{11}{16}$.

There is also a specimen of the male: but as it was in poor condition, I chose the female as the type, from which it does not differ in plumage. Its measure is given:—Length 5 inches, wing $2\frac{1}{4}$, tail $1\frac{1}{2}$. (*Lawrence.*)

Ober's Rufous Wren represents *T. rufescens* in the island of Grenada, one of the Lesser Antilles. Mr. Lawrence makes the following remarks upon the species:—"This species differs from *T. rufescens*, from Dominica, in having the colouring lighter throughout, especially below, the entire under plumage of *T. rufescens* being of a dark rufous; there are subterminal black markings on the under tail-coverts of *T. rufescens*, whereas those of the new species are immaculate."

### 14. **Thryothorus fasciativentris.** (Plate XIV. fig. 1.)

Thryothorus fasciativentris, *Lafr. Rev. Zool.* 1845, p. 337; *Bp. Consp.* i. p. 221; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7 (pt.); *id. P. Z. S.* 1879, p. 493.

Troglodytes fasciatoventris, *Gray, Gen. B.* i. p. 158.

*Adult male* (Remedios, Antioquia; T. K. Salmon). General colour above reddish brown, slightly duller on the head; median and lesser wing-coverts like the back; greater coverts and quills dusky, externally like the back, mottled with dusky-brown bars on the outer web, the inner secondaries barred across; upper tail-coverts like the back, with a few blackish bars; tail-feathers black, barred with reddish brown, not always completely, especially on the inner web; base of forehead dusky, as also the lores; a narrow white eyebrow, as well as a narrow line below the lower eyelid; cheeks and ear-coverts white, the upper edge of the latter blackish, with white shaft-streaks; entire throat and chest white; sides of neck slightly mottled with black on the borders of the white throat; remainder of under surface black, the breast uniform, forming a band; the abdomen barred with narrow cross lines of white, as also the flanks, but here the bars are slightly tinged with reddish; sides of breast barred with light reddish cross lines; thighs reddish brown, barred with black; under wing-coverts and

axillaries white, barred with black, slightly tinged also with reddish; quills dusky brown below, ashy white along the edge of the inner web. Total length 5·7 inches, culmen 0·85, wing 2·8, tail 2·3, tarsus 1.

*Obs.* Specimens from Bogotá (whence came Lafresnaye's type) in the collection of Messrs. Salvin and Godman and the British Museum agree with the Remedios skin.

The Banded-bellied Wren inhabits New Granada and Colombia.

| | | | |
|---|---|---|---|
| *a*, *b*. Ad. sk. | Bogotá. | Purchased. |

### 15. Thryothorus albigularis.

Cyphorhinus albigularis, *Sclater, P. Z. S.* 1855, p. 76, pl. lxxxviii.
Pheugopedius fasciatoventris, *Baird, Review Amer. B.* i. p. 134 (*nec Lafr.*).
Cyphorhinus fasciatoventris, *Lawr. Ann. Lyc. N. Y.* vii. p. 320.
Thryothorus fasciatoventris, *Scl. Cat. Amer. B.* p. 19; *Scl. & Salv. P. Z. S.* 1864, p. 346; *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 90 (pt.).

*Adult male* (Lion Hill, Isthmus of Panama; M'Cleannan). Similar to *T. fasciativentris*, Lafr., and, like that species, banded with white on the abdomen and under tail-coverts, but distinguished by the uniform ashy-black ear-coverts. Total length 5·6 inches, culmen 0·85, wing 2·6, tail 2·4, tarsus 0·95.

The Black-eared Banded-bellied Wren replaces the foregoing species in the Isthmus of Panama.

| | | |
|---|---|---|
| *a*. Ad. sk. | Paraiso Station, Isthmus of Panama (*A. Hughes*). | Osbert Salvin, Esq. |

### 16. Thryothorus melanogaster. (Plate XIV. fig. 2.)

Thryothorus fasciatoventris, *Salv. P. Z. S.* 1870, p. 180 (*nec Lafr.*); *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 90.
Pheugopedius fasciativentris (*nec Lafr.*), *Lawr. Ann. Lyc. N. Y.* ix. p. 92; *Von Frantzius, J. f. O.* 1869, p. 291.
Troglodytes fasciativentris, *Gray, Hand-l. B.* i. p. 189, no. 2585 (*nec Lafr.*).

*Adult male* (Bugaba, Chiriqui; E. Arcé). General colour above rather bright rufous, the head duller and browner, the upper tail-coverts narrowly barred with black; upper wing-coverts like the back, the greater series with indistinct dusky bars; quills brown, externally edged with rufous, indistinctly barred with dusky on the outer web, these bars going right across the inner secondaries; tail-feathers dark brown, barred with rufous, several of the bars being irregular; base of forehead dusky; lores white; a narrow white eyebrow, as also a small streak under the eye; sides of face and ear-coverts white, the upper edge only of the latter blackish; cheeks, throat, and chest white; remainder of under surface uniform black, with a few indications of rufous bars on the lower flanks, and of whitish bars on the lower abdomen; thighs rufous; under tail-coverts black, narrowly barred with rufous; under wing-coverts

dusky brown, barred with white or pale rufous; quills dull brown, rufescent along the inner web. Total length 5·3 inches, culmen 0·8, wing 2·7, tail 2, tarsus 0·95.

*Adult female* (Bugaba, Chiriqui; E. Arcé). Similar to the male, but the abdomen greyer and not of such a deep black. Total length 5·7 inches, culmen 0·85, wing 2·5, tail 2·2, tarsus 0·95.

*Young*. Differs from the adult in having the lower mandible yellow, in the duller rufous colour of the upper surface, the head and neck more dusky brown; tail rufous, browner towards the tip, and banded regularly with black, about 16 bars being perceptible; no trace of a white eyebrow; the lores, ear-coverts, and sides of face ashy; throat and chest white, shaded with ashy; remainder of under surface dull rufous-brown, the centre of the body dull ashy brown, with here and there a few indications of cross bars, more distinct on the under tail-coverts. Total length 2·5 inches, culmen 0·7, wing 2·7, tail 2·4, tarsus 0·85.

The Black-bellied Wren represents the foregoing species from Veragua into Costa Rica.

| | | |
|---|---|---|
| *a*. ♀ ad. sk. | Chiriqui, Veragua (*E. Arcé*). | Osbert Salvin, Esq. |
| *b*. ♂ ad. sk.; | Chiriqui (*E. Arcé*). | Osbert Salvin, Esq. |
| *c*. ♀ juv. | | |

### 17. Thryothorus atrigularis.

Thryothorus atrogularis, *Salvin, P. Z. S.* 1864, p. 580; *Lawr. Ann. Lyc. N. Y.* ix. p. 92; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7.
Pheugopedius atrigularis, *Lawr. Ann. Lyc. N. Y.* viii. p. 179.
Troglodytes atrogularis, *Gray, Hand-l. B.* i. p. 190, no. 2590.
Thryothorus atrigularis, *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 91, tab. vi. fig. 4.

*Adult* (Tucurriqui, Costa Rica; E. Arcé: type of species). General colour above dark chestnut, the head darker than the back, of a chestnut-brown colour; upper tail-coverts slightly paler chestnut than the back; lesser and median wing-coverts like the back; greater coverts blackish brown, edged with chestnut, the secondaries more broadly; bastard-wing, primary-coverts, and outer primaries nearly uniform blackish brown, the chestnut margins being apparently obsolete; tail blackish; an indistinct white loral spot; a narrow eyebrow, feathers round the eye, sides of face, and ear-coverts black, the latter with a few longitudinal white streaks, the black eyebrow produced over the ear-coverts and spotted with white; throat and breast black; sides of neck, sides of breast, and remainder of under surface brownish chestnut; under tail-coverts black, barred with fulvous; under wing-coverts ashy blackish; axillaries fulvous brown; edge of wing white, mottled with black bases to the feathers; quills dull brown below, ashy along the base of the inner web. Total length 5·3 inches, culmen 0·9, wing 2·7, tail 2·4, tarsus 1. (*Mus. Salvin and Godman.*)

*Obs.* A second specimen from Tucurriqui (*Arcé*) is in the collection of Messrs. Salvin and Godman, but is apparently younger. It differs from the one described above in having seven light fulvous bars on

the tail-feathers, while the under tail-coverts are more broadly barred, and with white instead of fulvous, the bases being light fulvous.

The Black-throated Wren is an inhabitant of Costa Rica, and has been doubtfully included in a list of birds obtained near Greytown, in Nicaragua.

### 18. Thryothorus felix.

Thryothorus felix, *Sclater, P. Z. S.* 1859, p. 371; *id. Cat. Amer. B.* p. 20; *Lawr. Mem. Bost. Soc. N. H.* ii. p. 268 (pt.); *Scl. & Salv. Nomencl. Av. Neotr.* p. 7; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 93, tab. vii. fig. 1.
Pheugopedius felix, *Baird, Review Amer. B.* p. 136.
Troglodytes felix, *Gray, Hand-l. B.* i. p. 190, no. 2592.

*Adult.* General colour above earthy brown, more rufous on the head, and especially so on the forehead; wing-coverts like the back; quills brown, externally rufescent brown, a little clearer than the back; upper tail-coverts brown, narrowly and distinctly barred with blackish; tail-feathers light brown, barred across with dusky blackish bars, about 12 in number, with whitish spots on the margins of the light bars in some of the feathers; lores and a ring round the eye white; eyebrow, ear-coverts, and cheeks white, streaked with black, the feathers being edged with black; sides of neck behind the ear-coverts also broadly streaked with black and white; throat white, shading off on the fore neck into light ashy fulvous, which is also the colour of the centre of the breast and abdomen; sides of the body and thighs fawn-buff; under tail-coverts dull white, barred with blackish; under wing-coverts and axillaries light fawn-buff, the edge of the wing white; quills dusky brown below, very pale rufous along the edge of the inner web. Total length 5·5 inches, culmen 0·75, wing 2·3, tail 2·6, tarsus 0·85. (*Mus. Salvin and Godman.*)

Boucard's Wren is confined to Mexico, where it was discovered in the State of Oaxaca, and has since been met with at Mazatlan.

### 19. Thryothorus lawrencii.

Thryothorus felix, β. lawrencii, *Ridgway, Bull. Nutt. Orn. Club*, 1878, p. 10; *Salv. Ibis*, 1878, p. 196; *Grayson, Proc. Bost. Soc. N. H.* xiv. p. 278.
Thryothorus lawrencii, *Salvin & Godman, Biol. Centr.-Amer., Aves*, i. p. 93.

Allied to *Thryothorus felix*, but differing in the under surface of the body being nearly white, the flanks being very slightly tinged with rufous, the eyebrows distinctly white, the cheeks white and unspotted, and distinguished also by the bill being more slender and curved. Total length 5·3 inches, bill from gape 0·95, wing 2·3, tail 2·2, tarsus 0·9. (*Salvin and Godman.*)

Lawrence's Wren replaces the foregoing species in the Tres Marias Islands, where it was discovered by the late Colonel Grayson. The description is translated from the Latin diagnosis made by Mr. Salvin from the type in the Smithsonian Institution at Washington.

### 20. Thryothorus mystacalis.

Thryothorus mystacalis, *Sclater*, *P. Z. S.* 1860, pp. 64, 74; *id. Cat. Amer. B.* p. 22; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7.
Troglodytes mystacalis, *Gray*, *Hand-l. B.* i. p. 189, no. 2584.

*Adult.* General colour above bright bay, the wing-coverts like the back; quills blackish brown, externally edged with rufous, the secondaries more broadly, the innermost shaded with rufous; tail-feathers rufous-brown, narrowly barred with black, about thirteen being discernible, though many of them are wavy and broken up, especially on the outer feathers; head dull slate-colour, the hind neck and sides of the latter lighter grey, slightly shaded with reddish brown; lores dusky; a distinct white eyebrow running from the base of the nostrils to above the ear-coverts, narrowly margined with black along its upper edge; ear-coverts white, streaked with black, the upper edge with a broad black streak; cheeks creamy white, bordered both above and below with a black line, the malar stripe being very broad and distinct; throat creamy white; fore neck and breast ashy grey; remainder of under surface of body ochreous brown, as also the thighs, which have a few remains of dusky bars; under tail-coverts rufous: under wing-coverts and axillaries pale rufous, the greater ones near the edge of the wing dusky; quills dusky brown, rufescent along the edge of the inner web. Total length 6·7 inches, culmen 0·85, wing 2·8, tail 2·9, tarsus 1·05. (*Mus. Salvin and Godman.*)

*Adult female.* Similar to the bird described above (a presumed male). Total length 6 inches, culmen 0·85, wing 2·5, tail 2·65, tarsus 1·05.

*Obs.* The birds described are a fine pair, collected in Colombia by the late Mr. T. K. Salmon, and are now in the collection of Messrs. Salvin and Godman. Ecuadorean skins are quite the same; but a skin from Bogotá, in the possession of the same gentlemen, is rather different, being darker both above and below, with the fore neck and chest dark ashy brown, the ear-coverts nearly uniform black, and the moustachial streak very broad.

The Moustached Wren inhabits Ecuador, and ranges into New Granada.

*a.* Ad. sk. Pallatanga, Ecuador. L. Fraser, Esq. [C.].

### 21. Thryothorus genibarbis.

Sphenura coraya, *Licht. Verz. Doubl.* p. 42 (*nec Gm.*).
Myiothera coraya, *Spix*, *Av. Bras.* p. 73, pl. 73. fig. 2 (*nec Gm.*).
Thryothorus coraya, *Neuwied*, *Beitr. Naturg. Bras.* iii. p. 754.
Thryothorus genibarbis, *Swains. An. in Menag.* p. 322.
Pheugopedius coraya. *Cab. Mus. Hein.* Th. i. p. 79 (*nec Gm.*).
Pheugopedius genibarbis, *Burm. Th. Bras.* ii. p. 133
Thryothorus melanos (*nec V.*), *Sclater*, *Cat. Amer. B.* p. 21; *Pelz. Orn. Bras.* pp. 48, 414; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7.
Troglodytes melanos (*nec V.*), *Gray*, *Hand-l. B.* i. p. 189, no. 2583.

*Adult.* General colour above rufous, the wing-coverts like the back, the greater coverts dusky brown, externally margined with rufous; bastard-wing and primary-coverts dusky blackish, with a very narrow rufous margin; quills dusky blackish, edged with light rufous, the secondaries externally broadly margined with the same colour as the back; tail dark ashy brown, broadly barred with black, the outer feathers dusky blackish on the inner web, and only barred with brown on the outer one, the outermost feather with some irregular fulvous cross markings near the tip; head dusky brown, contrasting with the back, and slightly washed with fulvous brown; eyelid white, as well as a distinct eyebrow, separated from the crown by a narrow black line, formed by blackish edgings to the feathers; lores and ear-coverts ashy black, the latter distinctly streaked with white; cheeks white, separated from the throat by a narrow malar line of black; sides of neck ashy grey; throat white; remainder of under surface of body light rufous-buff, browner on the flanks and thighs, the breast with a faint wash of ashy; under wing-coverts white, the axillaries washed with rufous; quills dark brown below, light rufous along the edge of the inner web. Total length 6·2 inches, culmen 0·8, wing 2·45, tail 2·4, tarsus 1.

Swainson's Moustached Wren is an inhabitant of Brazil, whence it ranges into Bolivia; and the statement that the specimen in the Eyton Collection came from Demerara requires confirmation.

| | | |
|---|---|---|
| *a*. Ad. sk. | Brazil. | R. B. Sharpe, Esq. [P.]. |
| *b*, *c*, *d*. Ad. sk. | Brazil. | Purchased. |
| *e*. Juv. sk. | Bahia. | Purchased. |
| *f*. Ad. sk. | Bolivia. | Mr. Bridges [C.]. |
| *g*. Juv. sk. | Demerara [?]. | Eyton Collection. |

## 22. Thryothorus coraya.

Le Coraya de Cayenne, *Daubent. Pl. Enl.* v. pl. 701. fig. 1.
Barred-tailed Thrush, *Lath. Gen. Syn.* ii. pt. i. p. 31.
Turdus coraya, *Gm. Syst. Nat.* i. p. 825.
Thryothorus melanos, *Vieill. Nouv. Dict. d'Hist. Nat.* xxxiv. p. 56*; *Bp. Consp.* i. p. 221.
Troglodytes coraya, *Gray, Gen. B.* i. p. 158.
Troglodytes melanos, *Gray, Gen. B.* i. p. 158.
Thryothorus coraya, *Bp. Consp.* i. p. 221; *Cab. in Schomb. Reis. Guian.* iii. p. 674; *Sclater, Cat. Amer. B.* p. 21; *Pelz. Orn. Bras.* pp. 48, 414; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7.
Pheugopedius coraya, *Cab. Mus. Hein.* Th. i. p. 79, note.

*Adult male.* General colour above deep chestnut, the head and nape more dusky and of a rufous-brown; wing-coverts like the back; greater series blackish, broadly edged with chestnut; bastard-

* Vieillot's description of his *T. melanos* points to the species being the same as the true *T. coraya* (Gm.):—"Les plumes des oreilles et des joues noires et tachetés de blanc."

wing and primary-coverts black, with very narrow reddish margins; quills blackish brown, with obsolete reddish edges, the inner secondaries more broadly margined with reddish; upper tail-coverts reddish brown, barred with black; tail-feathers black, barred across rather narrowly with ashy fulvous, about seven bars being perceptible on the centre tail-feathers; a distinct white eyebrow from the base of the nostrils to above the ear-coverts, the hinder portion of this superciliary line slightly varied with black edges to the feathers; eyelid white; lores, sides of face, ear-coverts, and cheeks jet-black, with a few white streaks on the ear-coverts, and a small white patch behind the lower edge of the latter and above the hinder part of the cheeks, which are produced far back, nearly to the sides of the neck; throat white; remainder of under surface light chestnut-red, paler and rather browner in the centre of the body; the lower flanks, vent, and thighs dark fulvous brown; under tail-coverts barred with fulvous and black in regular cross lines; under wing-coverts dull white, slightly mottled with ashy-brown bases to the feathers; axillaries ashy brown, washed with rufous; quills dark sepia-brown below, whitish along the edge of the inner web. Total length 5·3 inches, culmen 0·75, wing 2·35, tail 2·3, tarsus 0·9.

*Adult female.* Similar in colour to the male. Total length 5 inches, culmen 0·75, wing 2·1, tail 2·15, tarsus 0·9.

The Black-faced Wren appears to be confined to Guiana.

| | | | |
|---|---|---|---|
| *a*, *b*. ♂ ♀ ad. sk. | Bartica Grove, British Guiana, Dec. 1879. | Henry Whitely, Esq. [C.]. |
| *c*, *d*. Ad. st. | Cayenne. | H. C. Rothery, Esq. [P.]. |

### 23. Thryothorus amazonicus. (Plate XV. fig. 1.)

*Adult male.* General colour above rufous-brown, with a few dusky bars on the upper tail-coverts; head and neck dusky brown, contrasting with the back, and slightly washed with fulvous brown; wing-coverts like the back, the greater coverts, bastard-wing, and primary-coverts dark brown, externally edged with rufous-brown; quills dusky brown, externally margined with dull rufous-brown, the secondaries with rufous-brown, like the back; tail-feathers blackish brown, barred across with dusky fulvous, the outer feathers blackish on the inner web, without any lighter bars; over the eye a very narrow white line, slightly varied with blackish edges to the feathers; eyelid white; lores, sides of face, cheeks, and ear-coverts black, with a few white streaks on the latter; throat white, tinged with fulvous on the fore neck, the chest light ashy grey; remainder of the under surface pale fulvous brown, inclining to ashy brown on the flanks and under tail-coverts, the latter slightly banded with blackish; under wing-coverts ashy whitish, slightly varied with dusky bases to the feathers; quills dark brown below, whitish or ashy fulvous along the edge of the inner web. Total length 6·5 inches, culmen 0·75, wing 2·65, tail 2·4, tarsus 0·95.

Bartlett's Wren is only known at present from the Upper Amazons, to which region it will probably be found to be confined.

*a.* ♂ ad. sk. Sarayacu. Edward Bartlett [C.].

### 24. Thryothorus griseipectus. (Plate XV. fig. 2.)

Troglodytes coraya, *Gray, Hand-l. B.* i. p. 189, no. 2582 (*nec Gm.*).

*Adult male.* General colour above bright chestnut, the head duller rufous; wing-coverts like the back: bastard-wing feathers, primary-coverts and quills blackish brown, externally bright chestnut like the back; upper tail-coverts lighter rufous, barred obsoletely with dusky; tail-feathers rufous, broadly barred with black, about ten bars being discernible on the centre feathers; a narrow eyebrow of white, varied with blackish edgings to the feathers, and reaching from the base of the bill to the sides of the nape; eyelid white; lores, cheeks, and ear-coverts black, the latter streaked with white; throat white; fore neck and chest ashy grey; sides of breast and flanks, as well as the thighs and under tail-coverts, chestnut-rufous, paler rufous in the centre of the body; under wing-coverts and axillaries pale rufescent, the outer coverts mottled, with dusky bases to the feathers; quills sepia-brown below, pale rufous along the edge of the inner web. Total length 5·3 inches, culmen 0·75, wing 2·35, tail 2·25, tarsus 0·9.

*Obs.* Specimens from Sarayacu, Ecuador (*C. Buckley*), and Pebas (*J. Hauxwell*), in Messrs. Salvin and Godman's collection, agree well with the type above described, but have the under tail-coverts more or less barred with black.

*Young* (Loretoyacu, Eastern Peru, Oct. 21, 1877; J. Hauxwell). Differs from the adult in the duller and more fluffy nature of the plumage, but especially in the throat, which is ashy, washed with fulvous, instead of being white.

The Grey-chested Wren is a representative race of the foregoing species in Upper Amazonia, ranging into Eastern Ecuador.

*a.* ♂ ad. sk. Nauta. Edward Bartlett [C.].

### 25. Thryothorus euophrys.

Thryothorus euophrys, *Sclater, P. Z. S.* 1860, p. 74; *id. Cat. Amer. B.* p. 21; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7.
Troglodytes euophrys, *Gray, Hand-l. B.* i. p. 190, no. 2583.

*Adult.* General colour chestnut-red; upper wing-coverts like the back, the bastard-wing, primary- and greater coverts, and quills sepia-brown, externally chestnut, like the back; tail-feathers reddish brown, chestnut on the edges of the feathers: head more dusky brown, contrasting somewhat with the back; a distinct white eyebrow from the base of the nostrils to above the end of the ear-coverts: lores blackish; eyelid white; ear-coverts ashy brown, with longitudinal whitish centres; cheeks white, separated from the

throat by a broad malar stripe of black; chin white; throat and fore neck dull white, obscured with broad black margins; remainder of under surface dull fulvous brown, the sides of the body more rufous, as also the under tail-coverts; the breast slightly varied with a few cross bars of dusky brown; under wing-coverts rufous; quills dusky brown, margined with rufous-buff along the inner web. Total length 5·5 inches, culmen 0·95, wing 2·7, tail 2·6, tarsus 1·05. (*Mus. Salvin and Godman.*)

Fraser's Wren is apparently confined to Ecuador.

### 26. Thryothorus maculipectus.

Thryothorus maculipectus, *Lafr. Rev. Zool.* 1845, p. 338; *Sclater, P. Z. S.* 1856, p. 290, 1859, pp. 363, 372; *Scl. & Salv. Ibis*, 1860, p. 30; *Scl. Cat. Amer. B.* p. 21; *Scl. & Salv. P. Z. S.* 1870, p. 836; *iid. Nomencl. Av. Neotr.* p. 7; *Lawr. Bull. U.S. Nat. Mus.* no. 4, p. 13; *Salv. & Godm. Biol. Cent.-Amer., Aves*, i. p. 92.

Pheugopedius maculipectus, *Baird, Review Amer. B.* p. 135; *Sumichr. Mem. Bost. Soc. N. H.* i. p. 545.

Troglodytes maculipectus, *Gray, Hand-l. B.* i. p. 189, no. 2587.

*Adult male.* General colour above rather reddish brown, the head decidedly more rufous; wing-coverts like the back, the greater coverts and outer aspect of quills slightly more rufous than the back; inner aspect of quills dusky brown; upper tail-coverts slightly barred with dusky; tail-feathers ashy brown, towards the base rufescent brown like the back, crossed with twelve or thirteen blackish bands; lores and feathers round the eyes yellowish white; a tolerably distinct eyebrow of white feathers, bordered on the upper edge with black, which separates this eyebrow from the crown; cheeks and ear-coverts white, longitudinally streaked with black; throat white, with very distinct black streaks extending on to the fore neck; the chest and entire breast white, barred across with black, the feathers having a broad margin or irregular marginal spots of black; lower breast and upper abdomen more minutely spotted with black; sides of breast and flanks and thighs rufous-brown; under tail-coverts white or buff, with black cross bands; under wing-coverts white, with dusky bases to the feathers; axillaries ashy grey; quills dark brown below, whitish along the edge of the inner web. Total length 5·1 inches, culmen 0·7, wing 2·35, tail 2, tarsus 0·85.

The Spotted-breasted Wren is distributed throughout Central America, from Mexico to Guatemala and Honduras.

| | | |
|---|---|---|
| *a*, *b*. Ad.; *c*. Juv. sk. | Central America. | Purchased. |
| *d*. Ad. sk. | Central America. | Purchased. |
| *e*, *f*, *g*. Ad. sk. | Guatemala. | M. Boucard. |
| *h*, *i*. Ad. sk. | Vera Paz, Guatemala. | Osbert Salvin, Esq. [C.]. |
| *k*. Ad. st. | Honduras. | Mr. Dyson [C.]. |
| *l*. Ad. sk. | Honduras. | Mr. Dyson [C.]. |

### 27. Thryothorus paucimaculatus.

*Adult* (Balzar Mountains, Ecuador; Illingworth). General colour above rufescent brown, the head more rufous than the back; wing-coverts like the back; quills dusky brown, edged with rufous-brown, lighter on the edges of the primaries; tail-feathers ashy brown, barred with black, about eight bars being visible on the centre feathers, most of them broken up and irregular, the light bars whitish on their extreme edges; a broad and distinct white eye-brow drawn from the base of the nostrils to the sides of the nape, the feathers being margined with dusky; lores and sides of face white, narrowly streaked with black; the upper edge of the ear-coverts ashy brown, forming a broad stripe; cheeks and throat white, separated from each other by a narrow black malar stripe; remainder of under surface of body ashy white, the fore neck and chest with a few sparsely distributed blackish bars, the breast spotted with black; sides of breast ashy, the sides of the body and flanks light fulvous brown; under tail-coverts white, barred with black; under wing-coverts white; quills dusky brown below, whitish along the edge of the inner web. Total length 4·5 inches, culmen 0·7, wing 2·15, tail 2, tarsus 0·8. (*Mus. Salvin and Godman.*)

This species is represented at present by a single specimen from the Balzar Mountains in Ecuador, in the collection of Messrs. Salvin and Godman.

### 28. Thryothorus sclateri.

Thryothorus sclateri, *Tacz. P. Z. S.* 1879, p. 222.

*Adult* (Colombia; Verreaux). Very similar to *T. maculipectus*, but distinguished by the bars on the under surface being continued over the whole throat, and by the sides of the breast and the sides of the neck being ashy grey; the tail also is ashy grey, with about ten black cross bars. Total length 4·9 inches, culmen 0·75, wing 2·4, tail 2·1, tarsus 0·75. (*Mus. Salvin and Godman.*)

Sclater's Wren ranges from Northern Peru into the U. S. of Colombia.

### 29. Thryothorus rutilus.

Thryothorus rutilus, *Vieill. Nouv. Dict. d'Hist. Nat.* xxxiv. p. 55; *Ép. Consp.* i. p. 221; *Burm. Th. Bras.* ii. p. 134; *Sclater, Cat. Amer. B.* p. 21; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7.
Thryothorus rutilans, *Swains. B. Brazil & Mexico*, pl. 15.
Pheugopedius rutilans, *Baird, Review Amer. B.* p. 135.
Troglodytes rutilans, *Léot. Ois. Trinid.* p. 173.

*Adult male.* General colour above brown, a little more rufous on the head and neck; wing-coverts like the back; quills light sepia-brown, washed externally with clearer brown like the back, with faintly indicated dusky cross bars; upper tail-coverts like the back, barred across with dusky blackish; tail-feathers ashy brown, shaded with clear brown like the back, barred across with black, these bars about ten in number, some of the interspaces whitish on the edges

of the feathers; lores white; a narrow eyebrow, composed of white feathers edged with black, reaching to the side of the nape; ear-coverts dusky black, broadly streaked with white; entire cheeks and a patch below and behind the ear-coverts, as well as the throat, white, distinctly barred with black; lower throat, chest, and sides of body orange-rufous; centre of breast and abdomen dull white; lower flanks washed with brown; thighs brown, yellowish on the inner web; under tail-coverts yellowish buff, barred with black; axillaries white, shaded with ashy; under wing-coverts dull white, as also the edge of the wing, some of the inner ones washed with buff; quills dusky brown, ashy whitish along the edge of the inner web; "bill, legs, and iris dark brown" (*Léotaud*). Total length 5·5 inches, culmen 0·75, wing 2·25, tail 2·05, tarsus 0·85.

The White-bellied Orange-breasted Wren occurs in Guiana, Venezuela, and the island of Trinidad.

| | | |
|---|---|---|
| *a*. Ad. sk. | Trinidad. | R. B. Sharpe, Esq. [P.]. |
| *b*. Ad. sk. | Trinidad. | Purchased. |
| *c*, *d*. Ad. sk. | Demerara. | Eyton Collection. |
| *e*. ♂ ad. sk. | San Esteban, Venezuela. | W. Wilson Saunders, Esq. |
| *f*, *g*. Ad. st. | South America. | J. Gould, Esq. |

### 30. Thryothorus hypospodius.

Thryothorus hypospodius, *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 92, note.

*Adult* (type of species). General colour above rufescent brown, with a slight olive tint; the head more rufescent than the back, especially the forehead; wing-coverts like the back; quills dark sepia-brown, margined with the same brown as the back; tail-feathers ashy brown, strongly washed with the brown of the back, barred across with seven rather broad black bars, and spotted with white on the edge of some of the lighter interspaces; lores, eyelid, and a somewhat narrow eyebrow white, the feathers of the latter edged with black, forming a narrow marginal line between the eyebrow and the crown; ear-coverts blackish, longitudinally streaked with rather broad white centres to the feathers; cheeks, chin, and upper throat whitish barred with black; lower throat and fore neck orange, forming a broad band across the neck; centre of the breast and abdomen ashy grey; sides of body brown; under tail-coverts white, barred with black; under wing-coverts white, slightly mottled with black near the edge of the wing; quills dusky brown, white along the edge of the inner web. Total length 4·5 inches, culmen 0·7, wing 2·2, tail 1·8, tarsus 0·8. (*Mus. Salvin and Godman.*)

The Grey-bellied Orange-breasted Wren replaces the foregoing species in Colombia.

### 31. Thryothorus hyperythrus.

Thryothorus rutilans (*nec V.*), *Lawr. Ann. Lyc. N. Y.* vii. p. 320; *Salv. P. Z. S.* 1867, p. 134, 1870, p. 181.

Troglodytes rutilus, *Gray, Hand-l. B.* i. p. 189, no. 2586 (*nec V.*).
Thryothorus hyperythrus, *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 91.

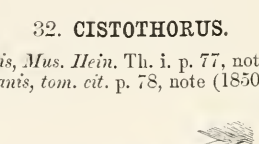
*Adult* (Paraiso Station, Panama; A. Hughes: type of species). General colour above brown, slightly olive in tint, the head light rufous-brown; lesser wing-coverts like the back: median and greater coverts brown, externally edged with lighter brown; upper wing-coverts like the back, barred across with blackish: tail ashy brown, slightly washed with the same colour as the back, barred with black, about ten bars being discernible; lores white, as also an eyebrow, which is separated from the crown by a narrow line of black: ear-coverts blackish, longitudinally streaked with white; cheeks and throat black, largely spotted with white, having the appearance of being barred with black, except in the centre of the throat, where the white predominates; sides of neck ashy; lower throat, breast, and abdomen orange-brown, lighter on the abdomen; sides of body slightly shaded with brown; under tail-coverts white, barred with blackish; under wing-coverts white, the axillaries tinged with orange-buff; quills light brown below, fulvescent along the inner web. Total length 5·5 inches, culmen 0·7, wing 2·15, tail 2, tarsus 0·8. (*Mus. Salvin and Godman.*)

The Orange-breasted Wren represents the previous species in the State of Panama.

*a*. ♂ ad. sk. Santiago de Veragua (*E. Arcé*). Osbert Salvin, Esq.

## 32. CISTOTHORUS.

Type.
Cistothorus, *Cabanis, Mus. Hein.* Th. i. p. 77, note (1850) C. stellaris.
Telmatodytes, *Cabanis, tom. cit.* p. 78, note (1850) ..... C. palustris.



Leg of *Cistothorus palustris*.

*Range.* The whole of the New World.

*Key to the Species.*

*a*. Crown uniform brown, with a black band along each side of it.
  *a'*. Upper and under tail-coverts uniform, without any cross bars; the latter sometimes represented by a few nearly obsolete spots ..... *palustris*, p. 241.
  *b'*. Upper and under tail-coverts very distinctly barred ..... *paludicola*, p. 242.
*b*. Crown longitudinally streaked with fulvous or white.
  *c'*. Lower back and rump streaked with black or white or yellowish buff.

*a''*. Hind neck black, forehead brown, both streaked with white; back black, streaked with white; upper tail-coverts black, slightly barred with fulvous and streaked with white; flanks fulvous, with spots of white; tail brown, with ashy fulvous cross markings ..... *stellaris*, p. 243.

*b''*. General character of upper surface tawny, streaked with blackish, the black streaking broader on the mantle; upper tail-coverts rufous; tail rufous, broadly barred with black; flanks yellowish buff, with no white spots .. *platensis*, p. 244.

*d'*. Lower back and rump uniform rufescent brown, not longitudinally streaked; upper tail-coverts rufous, with blackish cross bars ..... *polyglottus*, p. 245.

*c*. Crown uniform brown, without any black lateral band; tail regularly barred across with black .. *brunneiceps*, p. 247.

### 1. Cistothorus palustris.

Motacilla palustris, *Bartr. Trav. in Florida*, 1791, p. 291.
Certhia palustris, *Wilson, Amer. Orn.* ii. p. 58, pl. xii. fig. 4.
Thryothorus arundineus, *Vieill. Nouv. Dict. d'Hist. Nat.* xxxiv. p. 58.
Troglodytes palustris, *Bp. Journ. Philad. Acad.* iv. p. 30; *Audub. B. Amer.* pl. c.; *Less. Traité*, p. 400; *Swains. Faun. Bor.-Amer., Birds*, p. 319 (*cum fig.*); *Audub. Orn. Biogr.* i. p. 500; *Nutt. Man.* i. 1832, p. 439; *Audub. B. Amer.* ii. p. 135, pl. 123; *Giraud, B. Long Isl.* p. 76; *Scl. P. Z. S.* 1856, p. 290; *Reinh. Ibis*, 1861, p. 5.
Thryothorus palustris, *Bp. Comp. List B. Eur. & N. Amer.* p. 11; *Turnb. B. E. Pennsylv.* p. 27.
Troglodytes arundinaceus, *Gray, Gen. B.* i. p. 158; *id. Hand-l. B.* i. p. 190, no. 2607.
Thryothorus arundinaceus, *Bp. Consp.* i. p. 220.
Telmatodytes arundinaceus, *Cab. Mus. Hein.* Th. i. p. 78, note.
Cistothorus (Telmatodytes) palustris, *Baird in B. N. Amer.* p. 364.
Cistothorus palustris, *Selater, Cat. Amer. B.* p. 22 (pt.); *Blakist. Ibis*, 1862, p. 5; *Baird, Review Amer. B.* p. 147; *Maynard, B. Florida*, p. 42; *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* p. 161, pl. ix. fig. 6; *Salvin & Godman, Biol. Centr.-Amer., Aves*, i. p. 104.
Telmatodytes palustris, *Coues, Key N. Amer. B.* p. 87; *id. B. N.-West*, p. 34; *id. Birds Colorado Vall.* p. 178*.

*Adult.* Similar to *C. paludicola*, but distinguished by the absence of bars on the upper and under tail-coverts; "bill dark brown above, yellow beneath; feet light brown; iris hazel" (*Audubon*). Total length 4·5 inches, culmen 0·6, wing 2·15, tail 1·85, tarsus 0·8.

*Obs.* Professor Baird speaks of the bill being longer in this species, while bars are somewhat apparent in certain specimens. In the bird described I can see no appreciable difference in the bill, while the barring on the tail-coverts is absent altogether.

The Eastern Long-billed Marsh-Wren inhabits the Eastern province of the United States, whence it extends into Canada, and has even been reported from Greenland. It is this race which goes into Mexico (*spec. in Mus. S. & G.*).

* *Cf.* this work for numerous additional references.

| | | |
|---|---|---|
| *a.* Ad. sk. | Fort Carlton (*Capt. Blakiston*). | R. B. Sharpe, Esq. [P.]. |
| *b.* ♂ ad. sk. | Bellport, June 9, 1878 (*C. S. Allen*). | Smithsonian Institution [P.]. |
| Ad. sk. | North America. | |

## 2. Cistothorus paludicola.

Troglodytes palustris (*nec Bartr.*), *Gambel, Pr. Philad. Acad.* 1846, p. 113; *Newb. Pacific Rail. Rep.* vi. p. 80.

Troglodytes arundinaceus, *Gambel, Journ. Philad. Acad.* i. p. 33; *Reinh. J. f. O.* 1854, p. 438.

Cistothorus palustris, *Xantus, Pr. Philad. Acad.* xi. p. 191; *Cooper & Suckley, Pacific Rail. Rep.* x. p. 190; *Scl. Cat. Amer. B.* p. 22 (pt.); *Coues, Ibis*, 1865, p. 164; *id. Pr. Philad. Acad.* 1866, p. 78; *Cooper, B. Calif.* p. 75 (*cum fig.*).

Telmatodytes palustris, *Henry, Pr. Philad. Acad.* xi. p. 107.

Cistothorus palustris, var. paludicola, *Baird, Review Amer. B.* p. 148; *Baird, Brewer, & Ridgw. Hist. N.-Amer. B.* p. 161.

Telmatodytes palustris, var. paludicola, *Yarr. & Hensh. Rep. Orn. Specs.* 1874, p. 9.

*Adult male* (Upper Klamath Lake, Oregon, Dec. 31; A. Forrer). General colour above sandy or reddish brown, the scapulars and rump uniform; mantle and centre of the back blackish brown, streaked with white; crown of head and hind neck uniform pale sandy brown, with a blackish-brown streak along the side of the crown, widening on the nape; lores and a streak over the eye dull white; in front of the eye a brown spot; cheeks dull white, washed with brown; ear-coverts light brown, darker on the hinder margin; sides of neck light ashy brown, streaked with dull white; wing-coverts light sandy brown, the least series somewhat washed with ashy, the median and greater coverts spotted with blackish brown, many of the median coverts varied with a subterminal spot of white; primary-coverts brown, with pale sandy-brown margins; quills brown, narrowly margined with ashy brown on the primaries; the inner secondaries barred on the outer web with black and pale sandy brown, the pale bars inclining to dull white on the outer web; the innermost secondaries mottled with pale sandy brown and black, not forming regular bars; upper tail-coverts light sandy brown, barred across with dusky blackish, the bars very distinct; tail-feathers light brown, inclining to sandy brown, barred across with blackish, about eleven bars being perceptible on the centre tail-feathers, the other feathers much more broadly barred, especially on the inner webs, where some of the bars become almost merged together, on the outer feathers the light interspaces become dull whitish on their margins; throat dull white, shaded with pale sandy brown on the fore neck; sides of the body pale sandy brown, the centre of the breast and abdomen pure white; thighs rather darker brown; under tail-coverts pale sandy brown, barred across with white, the sandy bars also slightly marked with darker brown; under wing-coverts and axillaries white, slightly shaded with ashy brown; quills dusky brown below, whitish along the edge of the

inner web; "iris brown" (*A. Forrer*). Total length 4·25 inches, culmen 0·6, wing 2·1, tail 1·9, tarsus 0·8.

Birds in worn or abraded plumage appear to have the head much blacker, the margins to the feathers becoming worn off, when the light sandy-brown crown, which is visible in newly-moulted birds, becomes almost merged in the blackish sides of the crown. Professor Baird notices this peculiarity as belonging to birds from the interior as compared with those of the Pacific coast. Specimens of both forms, however, are in the Museum from the same locality, and the difference is due, I believe, to the state of plumage.

The Western Long-billed Marsh-Wren replaces the foregoing species in the middle province of the United States and on the Pacific coast, whence it ranges from British Columbia to California.

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|---|---|---|
| *a*. ♂ ad. sk. | S. Juan, Vancouver Island. | J. K. Lord, Esq. [C.]. |
| *b*. Ad. sk. | Sumass Prairie, British Columbia. | J. K. Lord, Esq. [C.]. |
| *c*, *d*. ♂ ♀ ad. sk. | West side of Rocky Mountains. | J. K. Lord, Esq. [P.]. |
| *e*. Ad. sk. | California. | Purchased. |
| *f*. ♂ ad. sk. | Upper Klamath Lake, Oregon, Dec. 31. | A. Forrer [C.]. |
| *g*. Ad. st. | North America. | Baron Laugier. |

### 3. Cistothorus stellaris.

Troglodytes stellaris, *Naum. Vög. Deutschl.* iii. p. 724; *Bp. Consp.* i. p. 220; *Gray. Hand-l. B.* i. p. 190, no. 2603.

Troglodytes brevirostris, *Nutt. Trans. Amer. Acad. Arts & Sci.*, new series, i. p. 98; *id. Man.* 1832, p. 436; *Audub. B. Amer.* pl. 175; *id. Orn. Biogr.* ii. p. 427; *Bp. Comp. List B. Eur. & N. Amer.* p. 11; *Audub. B. Amer.* 8vo, ii. p. 138, pl. 124; *Gray, Gen. B.* i. p. 158; *Bp. Consp.* i. p. 222.

Cistothorus stellaris, *Cab. Mus. Hein.* Th. i. p. 77; *Baird in B. N. Amer.* 1858, p. 365; *Sel. Cat. Amer. B.* p. 22; *Baird, Review Amer. B.* p. 146; *Sumichr. Mem. Bost. Soc. N. H.* i. p. 545; *Coues, B. N.-West*, p. 36; *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* i. p. 159, pl. ix. fig. 7; *Coues, B. Color. Vall.* p. 180.

Cistothorus brevirostris, *Sel. & Salv. Ibis*, 1859, p. 8.

Thryothorus stellaris, *Turnb. B. E. Pennsylv.* p. 27.

*Adult.* General colour above black, with small streaks along the feathers; forehead brown, the streaks on the head very small; the mantle and back slightly varied with brown, some of the feathers being externally of this colour; upper tail-coverts also black, mesially streaked with white, some of them barred near the base with black and fulvous brown; tail-feathers brown, barred across with darker brown, the outer feathers uniform on the inner webs, barred with brown and black externally and at the tips of both webs; lores, eyelid, and a narrow eyebrow dull white; cheeks and ear-coverts also dull white, the latter slightly mottled with dusky streaks; throat and centre of the body dull white; the breast, sides of the body, and flanks fawn-buff, varied with a few dusky bars before a white tip to some of the feathers; under wing-coverts and axillaries white,

washed with fulvous; quills ashy brown below, whitish along the edge of the inner web; "bill dusky above, pale brownish yellow beneath; feet pale flesh-colour; iris dark hazel" (*Audubon*). Total length 3·8 inches, culmen 0·45, wing 1·65, tail 1·35, tarsus 0·6. (*Mus. Salvin and Godman.*)

The Short-billed Marsh-Wren is distributed throughout the Eastern province of the United States from Georgia to the British possessions and from the Atlantic to the Upper Missouri. It is irregularly distributed and nowhere abundant.

*a, b.* Ad. sk. North America.

### 4. Cistothorus platensis.

Roitelet de Buénos Ayres, *Daubent. Pl. Enl.* vi. pl. 730. fig. 2.
Sylvia platensis, *Lath. Ind. Orn.* ii. p. 548.
Bas-acaraguay, *Azara, Apunt.* ii. p. 19; *Hartl. Ind. Azara*, p. 10.
Troglodytes platensis, *Vieill. N. Dict. d'Hist. Nat.* xxxiv. p. 510; *id. & Bonn. Enc. Méth.* ii. p. 472; *Naum. Vög. Deutschl.* iii. table to p. 724; *d'Orb. Voy. Amér. mérid. Zool.* p. 231; *Darw. Voy. Beagle, Birds*, p. 75; *Gray, Gen. B.* i. p. 158; *Bp. Consp.* i. p. 222; *Gould, P. Z. S.* 1859, p. 95; *Gray, Hand-l. B.* i. p. 191, no. 2608.
Hylemathrous platensis, *Max. Beitr. Naturg. Bras.* iii. p. 742; *Cab. J. f. O.* 1860, p. 406.
Thryothorus platensis, *Hartl. Ind. Azara*, p. 10; *Pelz. Orn. Bras.* pp. 48, 414.
Troglodyte de marais?, *Hombr. et Jacq. Voy. Pôle Sud, Atlas*, pl. 19. fig. 6.
Thryothorus eidouxi, *Bp. Consp.* i. p. 221 *.
Cistothorus platensis, *Scl. P. Z. S.* 1860, p. 384; *id. Cat. Amer. B.* p. 22; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7.
Cistothorus fasciolatus, *Burm. J. f. O.* 1860, p. 252; *id. Reis. La Pl. Staat.* ii. p. 476; *Scl. & Salv. P. Z. S.* 1869, p. 159.

*Adult.* General colour above pale sandy brown, varied with black streaks, the feathers being edged with this colour, some of the dorsal plumes mesially streaked with buffy white; head darker sandy brown, streaked with black; the hind neck paler sandy buff, with narrower dark streaks; scapulars resembling the back and similarly streaked; lesser wing-coverts uniform sandy brown, the median and greater series spotted with blackish, these spots arranged in the latter coverts so as to form bars; primary-coverts brown with pale tips; quills light brown, margined with pale sandy buff, the secondaries notched with blackish brown on the outer webs, the inner secondaries barred with broad spots of the same colour; upper tail-coverts and tail dark sandy brown, barred across with blackish brown, the dark bars less distinct on the outer feathers, which have paler tips; lores and a narrow eyebrow isabelline colour; ear-coverts and cheeks sandy buff, the former narrowly streaked with blackish on their hinder margin; under surface of body sandy buff, paler on the throat, and deepening on the flanks and sides; centre of the body and abdomen isabelline colour; under tail-coverts sandy buff, with

* Type examined in Paris Museum.

indistinct tips of blackish brown, producing a slightly barred appearance; thighs deep sandy buff; under wing-coverts and edging to the inner web of the quills below isabelline colour. Total length 4·3 inches, culmen 0·5, wing 1·85, tail 1·6, tarsus 0·65.

The La Plata Marsh-Wren is a common bird in Chili and Patagonia, ranging as far as Southern Brazil and Bolivia. It also inhabits the Falkland Islands.

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|---|---|---|
| *a*. Ad. sk. | Port Louis, Falkland Islands. | Lieut. A. Smith [P.]. |
| *b*, *c*. ♀ ad. sk. | Falkland Islands. | Antarctic Expedition. |
| *d*, *e*. Ad. sk. | East Falklands. | Antarctic Expedition. |
| *f*. Ad. sk. | Falkland Islands. | J. Gould, Esq. |
| *g*. ♀ ad. sk. | Santiago, Chili. | Herr Landbeck [C.]. |
| *h*. Ad. sk. | Straits of Magellan (*Capt. King*). | The Admiralty [P.]. |

### 5. Cistothorus polyglottus.

Todo voz, *Azara*, *Apunt.* ii. p. 29; *Hartl. Ind. Azara*, p. 10.
Thryothorus polyglottus, *Vieill. N. Dict. d'Hist. Nat.* xxxiv. p. 59 (*ex Azara*); *Bp. Consp.* i. p. 221; *Burm. Th. Bras.* ii. p. 136.
Troglodytes omnisonus, *Licht. in Mus. Berol.*; *Naum. Vög. Deutschl.* iii. table to p. 724.
Troglodytes interscapularis, *Von Nordm. in Erman's Reis.* p. 90, *Atlas*, pl. 13; *Licht. Nomencl. Av. Berol.* p. 34; *Gray*, *Hand-l. B.* i. p. 190, no. 2604.
Troglodytes polyglottus, *Gray*, *Gen. B.* i. p. 158; *id. Hand-l. B.* i. p. 190, no. 2606.
Cistothorus interscapularis, *Cab. Mus. Hein.* Th. i. p. 78, note.
Cistothorus interscapularis, *Burm. Th. Bras.* ii. p. 136; *Pelz. Orn. Bras.* p. 414.
Cistothorus elegans, *Scl. & Salv. Ibis*, 1859, p. 28; *Scl. Cat. Amer. B.* p. 30; *Baird*, *Review Amer. B.* p. 146; *Salv. P. Z. S.* 1870, p. 182; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7; *Baird*, *Brewer*, *& Ridgw. Hist. N. Amer. B.* i. p. 159; *Salv. & Godm. Biol. Centr.-Amer.*, *Aves*, i. pl. vii. fig. 3.
Cistothorus polyglottus, *Pelz. Orn. Bras.* pp. 48, 414; *Scl. & Salv. P. Z. S.* 1879, pp. 493, 593; *Salv. & Godm. Biol. Centr.-Amer.*, *Aves*, p. 105 (*nec V.*).
Cistothorus æquatorialis, *Lawr. Ann. Lyc. N. Y.* x. p. 3.
Cistothorus stellaris, var. elegans, *Coues*, *B. N.-West*, p. 36; *id. B. Color. Vall.* p. 180.
Cistothorus graminicola, *Taez. P. Z. S.* 1874, p. 130.
Cistothorus humivagans, *Taez. P. Z. S.* 1874, p. 504.

*Adult female* (Dueñas, Guatemala: type of *C. elegans*). General colour above blackish, streaked with fulvous brown on the crown and sides of the nape; centre of the nape and hind neck uniform brown; mantle black, streaked with buffy white; scapulars and wing-coverts brown, slightly mottled with a few blackish bars, and streaked along the shafts with buffy white; greater wing-coverts lighter fulvous brown, barred across with black; quills externally brown, barred with black and fulvous brown, paler on the outer edge of the primaries; lower back and rump brown, with a few bars of dusky black, the latter part slightly more rufescent; upper tail-coverts

rufous, with numerous distinct cross bars of black; tail-feathers rufous-brown, barred with black, many of the bars irregular and broken up, the outer feathers blackish, barred on the outer web with rufous-brown and black, the tips also rufous-brown, with remains of blackish bars; lores, eyelid, and a narrow eyebrow yellowish white; ear-coverts dull fulvous brown, streaked with dusky brown; cheeks pale fulvous brown, slightly varied with dusky edges to the feathers; throat whitish, slightly washed with fulvous; remainder of under surface fulvescent, fawn-colour on the sides of the body and under tail-coverts, with a few dusky bars on the latter, the thighs slightly browner and also with a few dusky bars; under wing-coverts and axillaries white, with a wash of fawn-colour near the edge of the wing; quills ashy below, whitish along the edge of the inner web; "bill above brown, below very pale brownish; feet light brown; iris brown" (*O. Salvin*). Total length 4·3 inches, culmen 0·55, wing 1·65, tail 1·8, tarsus 0·7. (*Mus. Salvin and Godman.*)

*Young.* Differs from the adult in having the whole of the upper surface nearly uniform brown, the mantle mottled with indistinct blackish cross-markings and a few whity-brown streaks; quills more uniform, with less distinct cross bars; tail-feathers blackish, with less distinct cross bars, especially on the outer feathers; underneath whiter than in the old bird.

*Obs.* Considerable variation is shown in different specimens of this species, some being far more rufous above and more fulvescent below than others; but a great deal of this difference is dependent upon age and season, the breeding birds becoming evidently bleached and rendered paler by the abrasion of the feathers. Messrs. Salvin and Godman have recently united the present species to the *C. polyglottus* of Brazil and Bolivia; and after examining the specimens in their collection as well as in Dr. Sclater's, I am also inclined to unite the whole Neotropical series as one species; but at the same time the Bolivian bird has a very regularly banded tail, almost as in *C. brunneiceps*. I subjoin the description of a Bolivian skin:—

*Adult* (Khapagnaia, Bolivia; C. Buckley). Head dusky brown, distinctly streaked with fulvous brown; the hind neck more uniform brown; mantle black, very broadly streaked down the centre with buffy white; lower back and rump reddish brown, as also the upper tail-coverts; scapulars and wing-coverts fulvous brown, slightly barred with dusky blackish, more distinct on the greater series; quills dusky brown, chequered externally with dusky and fulvous, the inner secondaries barred across; tail-feathers rufous-brown, a little clearer on the edges, all the feathers regularly barred across with black, about fourteen bands being plainly discernible; lores, eyelid, and a narrow eyebrow fulvous brown, as also the cheeks and ear-coverts, which are streaked with dusky brown; throat and centre of body dull white, the sides of the breast, flanks, thighs, and under tail-coverts fawn-buff; under wing-coverts and axillaries silky white; quills dusky brown below, ashy along the edge of the inner web. Total length 3·8 inches, culmen 0·55, wing 1·8, tail 1·75, tarsus 0·7. (*Mus. Salvin and Godman.*)

The Rufous-rumped Marsh-Wren inhabits the greater part of South America, from Southern Brazil and Paraguay to Bolivia, and northwards through the whole of the Neotropical Region to Southern Mexico.

| | | |
|---|---|---|
| *a*. Ad. sk. | Guatemala. | Eyton Collection. |
| *b*. Ad. sk. | Bahia Blanca, Jan. 4, 1837. | Charles Darwin, Esq. [C.]. |

### 6. Cistothorus brunneiceps.

Cistothorus brunneiceps, *Salvin, Ibis*, 1881, p. 129, pl. iii. fig. 1.

*Adult.* Head uniform dark fulvous brown; mantle and back black, streaked broadly down the centre of the feathers with fulvous; scapulars nearly uniform fulvous brown, with a few obsolete markings of dusky blackish near the tip; lower back and rump rather more rufous-brown, the former with indistinct bars of dusky black; upper tail-coverts rufescent brown, obscurely barred with black; wing-coverts like the back, barred with blackish on the median and greater series, the latter being also slightly washed with rufous; quills dusky brown, externally rufescent brown, barred with black, the inner secondaries banded across, the primaries margined with whity brown along the outer web; tail-feathers rufous-brown, barred across with black, about twelve bars being perceptible; lores, eyelid, and a distinct eyebrow rufous-buff; cheeks and ear-coverts rufous-buff, as also the entire under surface, paler on the centre of the abdomen; under wing-coverts and axillaries dull white, washed with fulvous; quills dusky brown below, ashy along the edge of the inner web. Total length 4·7 inches, culmen 0·55, wing 1·85, tail 1·85, tarsus 0·8.

*Hab.* Ecuador.

| | | |
|---|---|---|
| *a*. Ad. sk. | Ecuador. | Clarence Buckley [C.]. |

## 33. TROGLODYTES.

Type.

Troglodytes, *Vieill. Ois. d'Amér. sept.* i. p. 62 (1807). . . T. domesticus.
Hylemathrous, *Neuwied, Beitr. Naturg. Bras.* iii. p. 742. (1830).

Leg of *Troglodytes domesticus*.

*Range.* Throughout the entire New World, excepting the extreme north.

*Key to the Species.*

*a*. Eyebrow indistinct, light ashy brown or pale fulvous.
  *a'*. Under tail-coverts distinctly barred across with black and tipped with white.
    *a''*. Throat and centre of breast whitish; chest ashy brown; general colour light brown, with distinct cross bars on the back from the mantle downwards; under surface pale ..... *domesticus* and allies, p. 248.
    *b''*. Throat and centre of breast light brown.
      *a'''*. General colour more rufescent; no bars on the flanks of the adult bird .. *intermedius*, p. 252.
      *b'''*. General colour lighter brown, especially below; flanks in the adult bird with narrow but distinct bars ..... *striatulus*, p. 254.
  *b'*. Under tail-coverts tawny rufous, occasionally tipped with white and having subterminal spots or bars, the latter never complete as in section *a*; flanks uniform.
    *c''*. Upper surface uniform brown generally.
      *c'''*. Flanks and under tail-coverts bright tawny and uniform; breast also warm tawny ..... *musculus*, p. 255.
      *d'''*. Much paler than the foregoing, more isabelline below; under tail-coverts like the flanks, a little deeper in colour *hornensis*, p. 257.
    *d''*. Upper surface barred with dusky.
      *e'''*. Throat white, as well as the centre of the body; breast light brown ..... *rufulus*, p. 258.
      *f'''*. Throat pale vinous isabelline, like the rest of the under surface ..... *tessellatus*, p. 259.
*b*. Eyebrow very distinct indeed, and of a deep tawny colour like the sides of the face and throat.
  *e''*. Lower back and flanks uniform ..... *solstitialis*, p. 260. *frater*, p. 261.
  *f''*. Lower back and flanks numerously barred *brunneicollis*, p. 261. *rufociliatus*, p. 262.

## 1. Troglodytes domesticus.

Motacilla domestica, *Bartr. Trav. Florida*, 1st. Amer. ed. vol. i. p. 291 (1791).

Troglodytes aedon, *Vieill. Ois. Amer.* i. p. 52, pl. 107; *id. N. Dict. d'Hist. Nat.* xxxiv. p. 506; *Audub. B. Amer.* pl. 83; *id. Orn. Biogr.* i. p. 427, v. p. 470; *Bp. Comp. List B. Eur. & N. Amer.* p. 11; *Audub. B. Amer.* 8vo, ii. p. 125, pl. 120; *Gray, Gen. B.* i. p. 158; *Bp. Consp.* i. p. 222; *Baird, in Birds N. Amer.* p. 367; *Sclater, Cat. Amer. B.* p. 23; *Baird, Review Amer. B.* p. 138; *Gray, Hand-l. B.* i. p. 191, no. 2611; *Coues, Key N. Amer. B.* p. 86; *Maynard, B. Florida*, 1873, p. 39; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7; *Coues, B. N.-West*, p. 32; *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* p. 149, pl. 9. fig. 5; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 98.

Sylvia domestica, *Wils. Amer. Orn.* vol. i. p. 129, pl. 8. fig. 3; *Bp. Journ. Acad. N. Sci. Philad.* iv. p. 187 (1824).

Troglodytes fulvus, *Nutt. Man.* i. p. 422 (1832).
Troglodytes americanus, *Audub. Orn. Biogr.* ii. p. 452, pl. 179; *Bp. Comp. List B. Eur. & N. Amer.* p. 11; *Audub. B. Amer.* ii. p. 123, pl. 119; *Bp. Consp.* i. p. 222; *Baird, B. N. Amer.* p. 368; *id. Review Amer. B.* p. 141.
Troglodytes furvus, *Gloger, J. f. O.* 1854, p. 376 (*nec Gm.*).
Hylemathrous aedon, *Cab. J. f. O.* 1860, p. 407.
Hylemathrous americanus, *Cab. J. f. O.* 1860, p. 407.
Troglodytes domestica, *Coues, Pr. Philad. Acad.* 1875, p. 351*.

*Adult.* General colour umber-brown, slightly mottled with dusky centres to the feathers of the head, and with obsolete bars of dusky brown on the back and scapulars; lower back, rump, and upper tail-coverts more rufous-brown, barred with dusky brown on the upper tail-coverts, the rump varied with half-concealed spots of silky white; wing-coverts like the back, crossed with obsolete dusky bars, the median series having a triangular white spot edged with black near the tip, and an indistinct whitish shaft-line; quills dark brown, chequered on the outer web with rufous-brown notches and darker brown bars, more distinct on the secondaries, the innermost of which are barred across; centre tail-feathers rufous-brown, barred across with blackish, with lighter rufous spots at the edge of the lighter bars, the remainder of the feathers dusky brown on the inner web, the blackish bars indistinct and incomplete, the outer webs barred with rufous-brown and black, the external feather with a lighter conterminous bar along the black one; lores dull whitish; eyelid whity brown; ear-coverts dusky, minutely streaked with small spots of dull whitish, the upper edge slightly washed with rufous-brown; a faint eyebrow of dull whitish; feathers below the eye dusky brown; cheeks also whitish, slightly mottled with narrow brown margins; under surface of body ashy brown, slightly mottled on the fore neck and breast with faint cross bars of brown, before which is an obsolete paler band of whitish; centre of abdomen white; sides of body clear brown, mottled with a few bars of dusky blackish, these bars more distinct on the lower flanks, which are more rufescent; under tail-coverts white, barred with black, the black bars with a conterminous bar of rufous-brown; thighs light brown; under wing-coverts white, slightly mottled with dusky bases to the feathers, the axillaries shaded with brown; quills dusky brown, ashy along the edge of the inner web, with a few pale notches on the outer web; "bill dark brown above, yellowish brown beneath; feet flesh-colour; iris hazel" (*Audubon*). Total length 4·8 inches, culmen 0·55, wing 2·05, tail 1·8, tarsus 0·65.

The House-Wren inhabits the Eastern province of the United States, from the Atlantic to the Rocky Mountains.

| | | |
|---|---|---|
| *a, b.* Ad. st. | North America. | Purchased. |
| *c.* Ad. sk. | Toronto, Canada (*J. Whitely*). | R. B. Sharpe, Esq. [P.]. |
| *d.* ♂ ad. sk. | Havre de Grace, Maryland (*Kumlien & Bean*). | Smithsonian Institution [P.]. |

* In the 'Birds of the Colorado Valley' the whole synonymy of *T. domesticus* and *T. parkmanni* is given by Dr. Coues, whose work I have been much indebted to in compiling my own synonymy. The student will find a mass of local references, which it is not possible to reproduce in a work like the present.

### Subsp. *a*. Troglodytes parkmanni.

Troglodytes aedon, *Swains. & Rich. Faun. Bor.-Amer., Birds*, p. 316 (*nec V.*).
Troglodytes fulvus, *Towns. Journ. Philad. Acad.* viii. p. 154.
Troglodytes parkmannii, *Audub. Orn. Biogr.* v. p. 310; *id. Syn.* p. 75; *Nutt. Man.* 2nd ed. i. p. 483 (1840); *Audub. B. Amer.* ii. p. 133, pl. 122; *Gray, Gen. B.* i. p. 158; *Bp. Consp.* i. p. 222; *Baird, B. N. Amer.* p. 367; *id. Review Amer. B.* p. 140; *Coues, Ibis*, 1865, p. 164; *Brown, Ibis*, 1868, p. 421; *Cooper, B. Calif.* i. p. 71.
Troglodytes sylvestris, *Gambel, Proc. Philad. Acad.* iii. p. 113 (1846).
Troglodytes americanus, *Gambel, Journ. Philad. Acad.* i. p. 33 (1847).
Troglodytes aedon, var. parkmanni, *Coues, Key N. Amer. B.* p. 87; *Ridgw. Bull. Ess. Inst.* v. p. 180; *Allen, Amer. Nat.* vii. p. 362; *Coues, B. N.-West*, p. 32; *Baird, Brewer, & Ridgw. N. Amer. B.* i. p. 149.
Troglodytes domesticus parkmanni, *Coues, B. Color. Vall.* p. 171.

*Adult male* (Vancouver Island, May 17; A. Forrer). General colour above similar to *T. aedon*, but lighter and greyer brown, much less rufous on the rump and upper tail-coverts, and the tail more ashy brown in shade; below also slightly paler; bars on back and scapulars a little more distinct; "iris brown" (*A. Forrer*). Total length 4·2 inches, culmen 0·6, wing 2·05, tail 1·8, tarsus 0·65.

*Young* (Vancouver Island, June 26; A. Forrer). Differs from the adult in being much darker everywhere, and distinguished at a glance from the old birds by its uniform rufous under tail-coverts; the head uniform dusky brown, the whole back clearer umber-brown with scarcely any dusky bars, the upper tail-coverts uniform rufous-brown; tail-feathers very dark brown, crossed with bars of blackish chequered markings on the wings, much more distinct than in the adult, especially on the bastard wing; under surface of body dull whitish, the flanks browner, the thighs darker brown; the fore neck and breast fulvous brown, with dusky edgings to the feathers, producing a mottled appearance; "iris brown." (*A. Forrer.*)

The sexes measure as follows:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. ♂. W. side Rocky Mountains (*Lord*). | 4·0 | 0·6 | 2·0 | 1·8 | 0·65 |
| *b*. ♀. W. side Rocky Mountains (*Lord*). | 4·0 | 0·6 | 2·1 | 1·75 | 0·65 |

*Obs.* It is most difficult to separate this race from the true *Troglodytes domesticus*, and were plumage the only character I do not think that they could be kept distinct. The Western Wrens are certainly greyer and generally paler than the Eastern ones; but the specimens from Manitoba are so thoroughly intermediate, that on colour alone I should not hesitate to unite them. On the other hand the differ-

ences in the proportions of the primaries appear to be so constant as to demand a separation into races; and at present I regard them as four subspecies, distinguished by the characters pointed out by Professor Baird. The size and proportions of the quills play so important a part in the classification of some of the Old-World Warblers, that they should not be neglected in a study of the New-World Wrens. In *T. domesticus* the first primary is more than half the length of the second, and is generally half the length of the longest quills, whereas in *T. parkmanni* it is half the second. However, on the whole, the differences are by no means so marked in these Wrens as in some of the western and eastern races of Northern American birds. Mr. Salvin states also that the proportions of the first and second primaries are not constant, but so far I have found them to be so.

The Western House-Wren inhabits the Western and Middle United States, and ranges from Western Canada southwards to California.

| | | |
|---|---|---|
| *a*. Ad. sk. | Ann Arbor, Michigan. | Prof. J. B. Steere [P.]. |
| *b*. ♀ ad. sk. | Fort Dufferin, Manitoba (*G. Dawson*). | N. A. Boundary Comm. [P.]. |
| *c*. Ad. sk. | 49th Parallel, June 24, 1874 (*G. Dawson*). | N. A. Boundary Comm. [P.]. |
| *d*, *e*. ♂ ad. sk. | Vancouver Island, May. | A. Forrer [C.]. |
| *f*. ♂ pull. sk. | Vancouver Island, June 26. | A. Forrer [C.]. |
| *g*, *h*. ♂, *i*. ♀ ad. sk. | West side of Rocky Mountains. | J. K. Lord, Esq. [P.]. |
| *k*, *l*, *m*. Ad. sk. | California. | Purchased. |

### Subsp. β. Troglodytes aztecus.

Troglodytes aedon, var. aztecus, *Baird, Review Amer. B.* p. 139.
Troglodytes aedon, *Salvin & Godman, Biol. Centr.-Amer., Aves*, i. p. 98.

Similar to *T. domesticus* but very much paler. It has, however, the same shaped wing, the first primary being more than half the second. Total length 5 inches, culmen 0·55, wing 2, tail 1·8, tarsus 0·7.

The Mexican House-Wren seems to be confined to the eastern part of Mexico.

| | | |
|---|---|---|
| *a*. Ad. sk. | Mexico. | John Gould, Esq. |
| *b*. Ad. sk. | Mexico (*J. Gould*). | Eyton Collection. |

### Subsp. γ. Troglodytes insularis.

Troglodytes insularis, *Lawr. Ann. Lyc. N. York*, x. p. 3 (*ex Baird, MS.*); *id. Mem. Bost. Soc. Nat. Hist.* ii. p. 268; *Grayson, Pr. Bost. Soc. Nat. Hist.* xiv. p. 299; *Salvin & Godm. Biol. Centr.-Amer., Aves*, i. p. 99.

General colour above greyish mouse-brown, the back slightly waved with dusky; wings and tail banded across with dusky black; underneath whitish, the vent slightly marked with dusky; eye-

brows long and distinct; "bill brown above, the base of the mandible paler; feet brown with black nails; iris brown" (*Grayson*). Total length 4·4 inches, bill from gape 0·8, wing 1·9, tail 1·7, tarsus 0·8.

Grayson's House-Wren is only known from Sorocco Island, where it is said to be the commonest bird in the place. It is stated to resemble *T. domesticus*, but to be rather greyer in colour, and to be nearly white underneath without dusky markings.

### 2. Troglodytes intermedius.

Troglodytes sp., *Sclater, P. Z. S.* 1859, p. 372.
Troglodytes aedon (*nec V.*), *Scl. & Salv. Ibis*, 1859, p. 9; *Salv. Ibis*, 1866, p. 202.
Troglodytes intermedius, *Cab. J. f. O.* 1860, p. 407; *Baird, Review Amer. B.* p. 142; *Lawr. Ann. Lyc. N. Y.* ix. pp. 93, 199; *Gray, Hand-l. B.* i. p. 191, no. 2617; *Boucard, P. Z. S.* 1878, p. 51; *Salv. & Godm. Biol. Cent.-Amer., Aves*, i. p. 100.
Troglodytes hypaedon, *Sclater, P. Z. S.* 1861, p. 128; *id. Cat. Amer. B.* p. 23.
Troglodytes inquietus, *Lawr. Ann. Lyc. N. Y.* ix. p. 93 (*nec Baird*).
Troglodytes tessellatus (pt.), *Scl. & Salv. Nomencl. Av. Neotr.* p. 7.

*Adult male.* General colour above dark earthy brown, almost olive in some specimens, with faintly indicated cross bars on the lower mantle and back; on the rump some half-concealed spots of silky white, edged with a subterminal bar of blackish; the rump and upper tail-coverts rather more rufous than the rest of the upper surface, the latter obsoletely barred with dusky blackish; scapulars like the back, and with the same nearly obsolete bars; wing-coverts like the back, the median coverts with a tiny spot of dull white at the tip; the greater series earthy brown, distinctly crossed with dusky blackish bars, not very regular on some of the inner ones; quills dark sepia, externally edged with rufescent brown, all barred narrowly with dusky blackish, the interspaces on the primaries paler and more whity brown, producing a chequered appearance; tail-feathers earthy brown, barred across with dusky blackish, the bars irregular and forming spots here and there, the interspaces on some of the feathers whity brown; lores distinctly buffy whitish, as also an indistinct eyebrow; round the eye a ring of reddish buff; sides of face and cheeks buffy whitish, slightly obscured by dusky edges to the feathers; ear-coverts earthy brown, slightly varied with pale fulvous centres to the feathers; under surface of body isabelline brown, rather lighter on the throat and centre of the body; the flanks and sides of the body darker and clearer earth-brown, with a few obsolete bars on the lower flanks; thighs uniform dusky brown; under tail-coverts barred, rufescent in tint, barred across with narrow cross lines of blackish, before which are subterminal white interspaces on many of the feathers; under wing-coverts dull white, washed with pale fulvous on the axillaries, the edge of the wing whiter; quills light brown below, ashy along the edge of the inner

web. Total length 4·5 inches, culmen 0·6, wing 2·05, tail 1·9, tarsus 0·8.

The description is taken from a Costa-Rican specimen collected by Mr. Boucard in March 1877, which therefore may be considered in full spring plumage. Throughout the breeding-season the feathers become considerably worn and abraded, and an ashy shade is perceptible on the upper parts and on the wings, caused by the wearing of the edges of the feathers: this is shown by a specimen in the possession of Messrs. Salvin and Godman (Tucurriqui, Costa Rica, Oct. 1864; E. Arcé). *After the autumn moult* the plumage is darker and of a much deeper brown, and the underparts are also more ruddy; there is in this respect a decided difference between the spring and autumn plumage, but it is only a question of depth of tint. *Young birds* may be recognized at a glance by their uniform rufous under tail-coverts, and there are generally a few dusky edgings to the feathers of the throat and breast; the cheek-feathers are also often edged with dusky. The barring on the wings and tail is much coarser and broader than in the adult, and there are fewer bars; otherwise young birds resemble the old ones. After their first moult they appear like the adults in winter plumage, but are rather more rufous and are recognized at once by the uniform rufous under tail-coverts, which they appear to retain even after all trace of dusky barring has disappeared from the breast. The following is a series of measurements of the present species, taken from the Museum series and the specimens in the collection of Messrs. Salvin and Godman.

*Yucatan.* A specimen collected in the northern part of this country by Mr. G. F. Gaumer measures as follows:—Total length 4·5 inches, culmen 0·6, wing 1·95, tail 1·6, tarsus 0·7. It looks like a dark race of *T. domesticus* with strongly marked fulvous-brown chest and flanks.

*Guatemala.* Messrs. Salvin and Godman have a fine series from this country, and the contrast of the reddish-brown under surface is very marked when compared with a series of the true *T. domesticus* or *T. parkmanni*. In every instance the proportions of the first and second quills are those of the *T. domesticus* form, the first primary being more than half the length of the second. The following are the measurements of the series:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. Ad. Dueñas (*O. S. & F. D. G.*). | 4·5 | 0·6 | 2·05 | 1·6 | 0·7 |
| *b*. Juv. Dueñas | 4·0 | 0·5 | 1·85 | 1·5 | 0·7 |
| *c*. Juv. Dueñas (*O. S.*) | 4·0 | 0·6 | 1·9 | 1·5 | 0·7 |
| *d*. Juv. Retaluleu (*O. S. & F. D. G.*). | 4·0 | 0·55 | 1·85 | 1·4 | 0·65 |
| *e*. Ad. Vera Paz (*O. S. & F. D. G.*). | 4·0 | 0·6 | 1·95 | 1·5 | 0·7 |
| *f*. Ad. Vera Paz (*O. S.*) | 4·0 | 0·6 | 1·85 | 1·5 | 0·65 |

*Nicaragua.* One specimen, collected by Mr. Belt at Chontales, has been lent to me by Messrs. Salvin and Godman. It is a young bird and I therefore do not give the measurements, but it agrees thoroughly with the Guatemalan examples.

*Costa Rica*. Leaving out young specimens, I have examined a considerable number from this country, which show no differences from Guatemalan examples. It was from Costa Rica that Cabanis described his *Troglodytes intermedius*.

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. Irazu district (*H. Rogers*) | 4·3 | 0·6 | 1·3 | 1·6 | 0·7 |
| *β*. Irazu district (*H. Rogers*) | 4·5 | 0·6 | 1·95 | 1·5 | 0·7 |
| *γ*. Tucurriqui (*E. Arcé*) .... | 4·0 | 0·65 | 1·9 | 1·4 | 0·7 |
| *δ*. Barranca (*J. Carmiol*) .... | 4·5 | 0·6 | 2·0 | 1·6 | 0·7 |
| *ε*. Costa Rica (*Van Patten*) .. | 4·3 | 0·6 | 1·9 | 1·5 | 0·7 |
| *ζ*. San José (*Boucard*) ..... | 4·25 | 4·6 | 1·9 | 1·5 | 0·75 |
| *η*. ♂. San José (*Boucard*).... | 4·5 | 0·6 | 2·0 | 1·5 | 0·75 |

The Ruddy-sided House-Wren inhabits Central America, from the state of Oaxaca in Mexico and Yucatan to Costa Rica and Guatemala, being found everywhere in the latter country, irrespective of elevation.

| | | |
|---|---|---|
| *a*. ♂ ad.; *b*. Juv. sk. | Costa Rica. | Mr. Van Patten [C.]. |
| *c*. Ad. sk. | San José, Costa Rica, Jan. 1877. | A. Boucard [C.]. |
| *d*. ♂ ad. sk. | San José, March 1877. | A. Boucard [C.]. |
| *e*. ♂ ad. sk. | San José, April 1877. | A. Boucard [C.]. |
| *f*. ♂ ad. sk. | Coban, Vera Paz, Guatemala, Nov. 6, 1859. | Osbert Salvin, Esq. [C.]. |

### 3. Troglodytes striatulus.

Troglodytes striatulus, *Lafr. Rev. Zool.* 1845, p. 338.
Hylemathrous striatulus, *Cab. J. f. O.* 1860, p. 406.
Troglodytes hypaedon (*nec Sclater*), *Lawr. Ann. Lyc. N. Y.* vii. p. 320; *Scl. & Salv. P. Z. S.* 1864, p. 346.
Troglodytes inquietus, *Lawr. MSS., undè*
Troglodytes inquietus, *Baird, Rev. Amer. B.* p. 143; *Lawr. Ann. Lyc. N. Y.* viii. p. 174, ix. p. 93.
Troglodytes tessellatus (*nec. Lafr. & d'Orb.*), *Salv. P. Z. S.* 1867, p. 135; *id. Ibis*, 1869, p. 312; *Scl. & Salv. P. Z. S.* 1879, p. 493; *Salv. & Godm. Ibis*, 1880, p. 198.
Troglodytes furvus (pt.), *Scl. & Salv. Nomencl. Av. Neotr.* p. 7 (*nec Gm.*); *Salv. & Godm. Biol. Cent.-Amer., Aves*, i. p. 101 (pt.).

Though very closely resembling *T. intermedius* of Costa Rica and Guatemala, we are struck at once by a difference which the Panama birds exhibit on their flanks, these being perceptibly barred; the back and mantle also appear more banded than in true *T. intermedius*. Not much difference in size is exhibited, and the proportions of the first and second primary are as in *T. domesticus*. The following measurements are taken from the series in the British Museum and in the collection of Messrs. Salvin and Godman:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. Panama (*M'Cleannan*).... | 4·2 | 0·6 | 1·95 | 1·5 | 0·75 |
| *β*. Panama (*M'Cleannan*) .. | 4·2 | 0·55 | 2·0 | 1·6 | 0·75 |

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| γ. Panama (*F. Hicks*) ..... | 4·5 | 0·7 | 2·05 | 1·6 | 0·75 |
| δ. Lion-Hill Station (*M'Clean-nan*) ..... | 4·6 | 0·7 | 2·0 | 1·65 | 0·75 |
| ε. Paraiso (*A. Hughes*)..... | 4·0 | 0·6 | 2·05 | 1·5 | 0·75 |
| ζ. Chitra, Veragua (*Arcé*) .. | 4·0 | 0·6 | 2·05 | 1·5 | 0·75 |
| η. ♂. Chitra, Veragua (*Arcé*) | 4·4 | 0·6 | 2·0 | 1·45 | 0·75 |
| θ. ♀. Calovevora, Veragua (*Arcé*) ..... | 4·0 | 0·65 | 1·95 | 1·5 | 0·75 |
| ι. Colon (*Boucard*) ..... | 4·5 | 0·6 | 2·15 | 1·65 | 0·75 |
| κ. Colon (*Boucard*) ..... | 4·5 | 0·7 | 2·05 | 1·6 | 0·7 |

*Colombia.* A series of skins from Bogotá appear to be the same as the Panama birds; the same may be said of the late T. K. Salmon's Antioquia specimens, and, as will be seen from the following table of measurements, the dimensions are similar:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| α. ♂. Medellin (*T. K. Salmon*) .. | 4·8 | 0·7 | 2·2 | 1·8 | 0·8 |
| β. ♀. Medellin (*T. K. Salmon*).. | 4·8 | 0·65 | 2·1 | 1·75 | 0·75 |
| γ. Medellin (*T. K. Salmon*) .... | 4·4 | 0·65 | 2·1 | 1·5 | 0·8 |
| δ. Bogotá ..... | 4·0 | 0·6 | 2·05 | 1·5 | 0·7 |
| ε. Bogotá ..... | 4·25 | 0·7 | 2·15 | 1·75 | 0·75 |
| ζ. Bogotá ..... | 4·6 | 0·7 | 2·15 | 1·7 | 0·8 |
| η. Bogotá ..... | 4·2 | 0·65 | 2·2 | 1·7 | 0·8 |

The Colombian House-Wren inhabits Panama and extends into New Granada.

| | | |
|---|---|---|
| *a.* Ad. sk. | Isthmus of Panama (*M'Cleanan*) | Osbert Salvin, Esq. |
| *b, c.* ♂ ad. sk. | Colon, Panama. | A. Boucard [C.]. |
| *d.* ♂ ad. sk. | Medellin, New Granada. | T. K. Salmon [C.]. |
| *e.* Juv. sk. | Bogotá. | M. Verreaux. |
| *f.* Ad., *g.* Juv. sk. | Bogotá. | Purchased. |
| *h, i, k.* Ad., *l.* Juv. sk. | Bogotá. | Purchased. |

### 4. Troglodytes musculus*.

Troglodytes musculus, *Naum. Vög. Deutschl.* iii. p. 724, table (*ex Licht.*); *Gray, Hand-l. B.* i. p. 191, no. 2612.
Thryothorus æquinoctialis, *Swains. B. Brazil & Mexico*, pl. 13†.

* This species is generally called *Troglodytes furvus*, a name founded on the *Motacilla furva*, which in turn is taken from the "Brown Warbler" of Brown. Neither figure nor description suit any known species of Wren; but if identified at any future time, the synonymy will be as follows:—

Brown Warbler, *Brown, Ill. Zool.* p. 68, pl. xxviii. fig. 2; *Lath. Gen. Syn.* iv. p. 508.
Motacilla furva, *Gm. Syst. Nat.* i. p. 994.
Sylvia furva, *Lath. Ind. Orn.* ii. p. 548.
Troglodytes furvus, *Gray, Gen. B.* i. p. 158.

† The plate represents a bird with a few tiny black spots on the under tail-coverts. Mr. Layard's Para skin in the Museum is similar.

Troglodytes furvus (*nec Gm.*), *Licht. Verz. Doubl.* p. 35; *Naum. Vög. Deutschl.* iii. p. 724, table; *Vieill. Gal. Ois.* i. p. 273, pl. clxvii.; *Neuwied. Beitr. Naturg. Bras.* iii. p. 746; *Bp. Consp.* i. p. 222; *Burm. Th. Bras.* iii. p. 137; *Sclater, Cat. Amer. B.* p. 23; *Scl. & Salv. P. Z. S.* 1867, p. 568, 1869, p. 158; *Gray, Hand-l. B.* i. p. 191, no. 2609; *Pelz. Orn. Bras.* p. 414; *Scl. & Salv. Nomencl. Av. Neotr.* p. 7.

Thryothorus platensis, *Neuwied, Beitr. Naturg. Bras.* iii. pt. 2, p. 742.

Troglodytes platensis, *d'Orb. Voy. Amér. mérid.* p. 131; *Scl. & Salv. P. Z. S.* 1879, p. 593.

Troglodytes æquinoctialis, *Gray, Gen. B.* i. p. 222.

Troglodytes platensis, *Burm. Th. Bras.* iii. p. 137.

Hylemathrous furvus, *Cab. J. f. O.* 1860, p. 406.

*Adult.* General colour above light brown, slightly washed with rufous on the scapulars and lower back, where there are a few obsolete traces of dusky cross bars; lesser wing-coverts like the back; median and greater series light rufous-brown, with cross-barrings of darker brown; quills dusky brown, externally light rufescent, chequered with cross-markings of dusky brown, the inner secondaries barred across with dusky brown; rump and upper tail-coverts bay, with a few indications of dusky cross bars on the latter; tail-feathers reddish brown, barred across with narrow lines of blackish, about seventeen being visible on the centre feathers; lores dull white; feathers round the eye and a faint eyebrow pale fulvous; ear-coverts brown, with indistinct whitish shaft-lines; cheeks and throat dull whitish, with a slight fulvous tinge; remainder of under surface bright vinous brown, inclining to rufous on the flanks and under tail-coverts, which are perfectly uniform; under wing-coverts and axillaries very pale whity brown in colour; quills light brown below, ashy on the edge of the inner web. Total length 4·5 inches, culmen 0·6, wing 2·05, tail 1·65, tarsus 0·7.

There is a general appearance about the Wrens from South America that makes them easily recognizable. Their tawny flanks and under tail-coverts, which are quite uniform, the narrow barring on the tail, and the uniform upper surface are all characters which distinguish them; and taken by themselves they are distinct enough from all except the Chilian birds.

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. Bahia (*Wucherer*) ..... | 4·25 | 0·65 | 1·95 | 1·6 | 0·7 |
| *β*. Brazil ..... | 4·7 | 0·6 | 1·95 | 1·6 | 0·75 |
| *γ*. Bahia (*Wucherer*) ..... | 4·25 | 0·7 | 2·0 | 1·75 | 0·7 |
| *δ*. Bahia (*Wucherer*) ..... | 4·3 | 0·65 | 2·0 | 1·65 | 0·7 |
| *ε*. Rio (*C. Darwin*) ..... | 4·5 | .... | 1·9 | 1·75 | 0·75 |
| *ζ*. Ramosani, Bolivia (*C. Buckley*) | 4·0 | 0·6 | 2·0 | 1·7 | 0·75 |
| *η*. Ramosani, Bolivia (*C. Buckley*) | 4·25 | 0·65 | 1·9 | 1·7 | 0·75 |
| *θ*. Brazil (*Purchased*) ..... | 5·0 | 0·65 | 2·05 | 1·8 | 0·75 |
| *ι*. Brazil (*Purchased*) ..... | 4·5 | 0·65 | 2·1 | 1·6 | 0·75 |
| *κ*. Brazil (*Purchased*) ..... | 4·5 | 0·65 | 2·0 | 1·65 | 0·75 |
| *λ*. ♂. Para (*E. L. Layard*).... | 4·8 | 0·65 | 2·1 | 1·7 | 0·75 |
| *μ*. Bolivia (*Bridges*) ..... | 4·8 | 0·6 | 2·1 | 1·7 | 0·7 |

The Brazilian House-Wren inhabits the whole of Brazil and extends into Bolivia.

| | | |
|---|---|---|
| *a*. Ad. sk. | Brazil. | Purchased. |
| *b*. Ad. sk. | Bahia. | Purchased. |
| *c*. ♂ ad. sk. | Para, Sept. 19, 1872. | E. L. Layard, Esq. [C.]. |
| *d*. Ad. sk. | Para. | R. Graham, Esq. [P.]. |
| *e*, *f*. Ad. sk. | Brazil. | Purchased. |
| *g*. Ad. sk. | Bolivia. | Mr. Bridges [C.]. |
| *h*. Ad. sk. | South America. | Baron Laugier. |

### 5. Troglodytes hornensis.

Troglodytes hornensis, *Less. Inst.* 1834, p. 316; *id. Voy. Thétis, Zool.* p. 327; *Bp. Consp.* i. p. 222; *Sclater, Cat. Amer. B.* p. 23; *Gray, Hand-l. B.* i. p. 191, no. 2610; *Pelz. Orn. Bras.* p. 414.
Troglodytes magellanicus, *Gould, P. Z. S.* 1836, p. 85; *Darwin. Zool. Beagle, Birds*, p. 74; *Bridges, P. Z. S.* 1843, p. 111; *Hartl. Naum.* iii. p. 211; *Scl. P. Z. S.* 1867, p. 321; *Gray, Hand-l. B.* i. p. 191, no. 2618.
Troglodytes pallida, *Lafr. et d'Orb. Mag. de Zool.* 1837, Cl. ii. p. 25.
Troglodytes rosaceus, *Less. Rev. Zool.* 1840, p. 263.
Troglodytes hortensis (*lapsu*), *Gray, Gen. B.* i. p. 158.
Hylemathrous hornensis, *Cab. J. f. O.* 1860, p. 406.

*Adult.* General colour above uniform brown, the rump pale tawny brown with half-concealed white spots; upper tail-coverts deeper tawny brown, with indistinct dusky transvermiculations; wing-coverts like the back, the greater series rather paler on their edges and having indistinct dusky cross-markings; quills brown, the first two primaries uniform and edged with whity brown along the extreme outer margin, the other primaries chequered on the outer web with fulvous-brown notches; secondaries barred with dull tawny brown and dusky brown, not very distinct on the innermost, which are indistinctly barred across; tail-feathers light fulvous brown, barred across with darker brown, more distinctly on the outer feathers, about thirteen or fourteen bars being distinguishable; lores dull white; eyelid buffy white; over the eye a faint eyebrow of rufescent brown; ear-coverts light brown, rufescent brown on the hinder portion; cheeks and under surface of body isabelline brown, dull whitish on the throat and centre of abdomen; flanks, sides of body, and thighs bright sandy brown, deeper on the under tail-coverts, which are tipped with isabelline, the longer feathers with one or two blackish spots; axillaries like the sides of the breast; under wing-coverts dull silky white; wings light brown below, ashy brown along the edge of the inner web.

I have seen a good series from Chili, and look upon the bird as a pale isabelline race of the preceding species, having the tail more rufescent with pale-brown bars, and the under surface of a light vinous isabelline, deepening into tawny buff on the flanks and under tail-coverts. The under tail-coverts are generally uniform, but not always so, and some have distinct white tips with subterminal spot-like bars.

The Pale House-Wren is found in Patagonia and Chili as far north as Mendoza.

| | | |
|---|---|---|
| *a*. Ad. sk. | Straits of Magellan. | Lieut. A. Smith. [P.]. |
| *b*. Ad. sk. | Chili. | Purchased. |
| *c*, *d*. Ad. sk. | Santiago, Chili. | E. C. Reed, Esq. [C.]. |
| *e*, *f*, *g*. Ad. sk. | Santiago, Chili. | E. C. Reed, Esq. [C.]. |

### 6. Troglodytes rufulus.

Troglodytes rufulus, *Cab. in Schomb. Reis. Guian.* iii. p. 672; *Léot. Ois. Trinid.* p. 170.
Troglodytes tessellatus, *Sel. & Salv. P. Z. S.* 1873, p. 257.

*Adult.* General colour above brown, inclining to mouse-brown on the head, the scapulars and back with obscure dusky bars; rump and upper tail-coverts rather more rufous than the back; lesser and median coverts like the back, the greater series brown, slightly tinged with rufous and barred externally with dusky brown; quills dark brown, chequered with pale rufous on the outer web, and very distinctly barred with dusky or blackish brown, the inner secondaries barred across both webs in a somewhat irregular manner; tail-feathers reddish brown, barred across with blackish brown, the bars being about fifteen in number on the central tail-feathers, but not strictly conterminous; lores dull white; above the eye an indistinct superciliary streak of whity brown; ear-coverts whity brown, the upper margin dark brown; cheeks, throat, and centre of body dull white, the fore neck and chest pale brown, the sides of the body rufescent, deepening on the lower flank, thighs, and under tail-coverts, the latter being uniform; under wing-coverts and axillaries dull white, somewhat washed with brown; quills dusky brown below, whitish along the edge of the inner web; "bill brown, whitish at base of lower mandible; feet and iris brown" (*Léotaud*).

The *adult female* resembles the male.

*British Guiana.* Three specimens from Bartica Grove, collected by Mr. H. Whitely, belong to a different race from the Panama birds, and are distinguished by the white throat and white belly, separated by a brown breast, shading off into tawny on the lower flanks and under tail-coverts, the latter having few bar-like spots. They have the following dimensions, and appear to me to be identical with the Santa-Marta race:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. Bartica Grove (*H. Whitely*) | 4·0 | 0·65 | 2·1 | 1·5 | 0·75 |
| *β*. ♂. Bartica Grove (*H. Whitely*) | 4·2 | 0·65 | 2·05 | 1·6 | 0·75 |
| *γ*. Bartica Grove (*H. Whitely*) | 4·0 | 0·6 | 1·9 | 1·5 | 0·7 |

*Colombia.* Three specimens, collected by Mr. Simons in the Sierra Nevada, near Santa Marta, are by no means identical with the Panama and Antioquia individuals, but belong to the group of *Troglodytes furvus*. The deep tawny flanks and under tail-coverts are quite distinct when compared with the same parts in Panama skins,

and the bars are so small and imperfect as to be more like spots. The measurements of these three skins are as follows:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. ♂. Santa Marta (*Simons*) .. | 4·3 | 0·65 | 2·05 | 1·65 | 0·75 |
| *β*. Maricosa, S.M. (*Simons*) .. | 4·3 | 0·7 | 2·0 | 1·5 | 0·7 |
| *γ*. Santa Marta (*Simons*) .... | 4·4 | 0·65 | 2·05 | 1·6 | 0·75 |

*Ecuador*. Here again occurs the brown-chested white-bellied race, with the tawny flanks and under tail-coverts sparsely spotted with black. I have seen three specimens, which measure as follows:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. Monji, Ecuador (*C. Buckley*) | 4·0 | 0·6 | 1·95 | 1·5 | 0·75 |
| *β*. Monji, Ecuador (*C. Buckley*) | 4·0 | 0·6 | 1·95 | 1·4 | 0·75 |
| *γ*. Quito ..... | 4·25 | 0·6 | 2·05 | 1·5 | 0·75 |

*Amazonia*. A pair obtained at Xeberos by Mr. E. Bartlett consist of an old male and a younger female. They can scarcely be called the same as *T. rufulus*, for the male differs from the Ecuador birds in its distinctly barred under tail-coverts, though it agrees with them in its whitish throat. I consider, however, that they are nearer to the Guiana and Ecuador form than any of the others.

The White-breasted House-Wren ranges from Guiana through Venezuela and Trinidad to the Sierra Nevada of Santa Marta. It also inhabits Ecuador, and extends to Upper Amazonia; here it is less typical.

| | | |
|---|---|---|
| *a*. Ad. sk. | Bartica Grove, Demerara, Feb. 23, 1880. | H. Whitely [C.]. |
| *b*. Imm. sk. | Trinidad. | Purchased. |
| *c*. Ad. sk. | [Venezuela.] | Purchased. |
| *d*. Ad. sk. | Sierra Nevada of Santa Marta.* | F. Simons, Esq. [C.]. |
| *e*. ♂ ad. sk. | Xeberos, Peruvian Amazons, May 22, 1866. | E. Bartlett, Esq. [C.]. |
| *f*. ♀ ad. sk. | Xeberos, June 26, 1866. | E. Bartlett, Esq. [C.]. |

### 7. Troglodytes tessellatus.

Troglodytes tesellatus, *Lafr. et d'Orb. Mag. de Zool.* 1837, pl. ii. p. 25.
Troglodytes tessellatus. *Gray, Gen. B.* i. p. 158; *Bp. Consp.* i. p. 222; *Scl. & Scl. Nomencl. Av. Neotr.* p. 7 (pt.).
Troglodytes murinus, *Less. Rev. Zool.* 1844, p. 434.

*Adult*. General colour above mouse-brown, with obscure dusky bars on the head and upper surface generally, being distinctly seen on the mantle and increasing in strength on the back; rump and upper tail-coverts light rufous, also barred across with dusky, and having half-concealed spots of silky white, each spot relieved by a dusky blackish edging; wing-coverts like the back and distinctly barred across, the bastard-wing feathers edged and tipped with

* *T. tessellatus*, Salvin and Godman, Ibis, 1879, p. 198.

white; greater series lighter and more sandy in appearance; quills dusky brown, barred with darker brown, and chequered with light sandy brown spots and notches externally; the dusky cross-markings on the secondaries particularly coarse in character; tail-feathers light sandy brown, regularly barred with blackish brown, about ten bars being perceptible on the centre feathers, where they are not strictly conterminous; lores and feathers at gape dull white; feathers over the eye and eyelid pale reddish brown; ear-coverts mouse-brown, with a slight reddish tinge; cheeks and under surface of body light rufescent brown, deepening on the flanks and under tail-coverts, the latter tipped with white and barred with black, the bars not always traversing the feather; under wing-coverts and axillaries white, washed with the same rufescent brown as the breast; quills light brown below, whitish along the inner web.

*Peru.* Two specimens from Arequipa, collected by Mr. H. Whitely, are of rather large size and very pale coloration both above and below, and they are very thickly mottled with cross bars on the mantle and back. Though not so thickly barred on the under tail-coverts as some of the Central-American Wrens, they yet approach them somewhat in general appearance.

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. Ad. Arequipa (*H. Whitely*) | 5·25 | 0·65 | 2·1 | 1·85 | 0·75 |
| *β*. ♂ ad. Arequipa (*H. Whitely*) | 5·0 | 0·65 | 2·15 | 1·75 | 0·75 |
| *γ*. Ad. Paucatambo (*H. Whitely*) | 4·8 | 0·65 | 2·1 | 1·9 | 0·75 |

The third specimen appears to be young. It has uniform tawny buff under tail-coverts, without spots or bars; the rump and upper tail-coverts are strongly washed with tawny, and the tail is somewhat more rufous than the other two Peruvian skins. Although much resembling the brown-chested white-bellied race from British Guiana, it may be told by its isabelline throat and under surface.

The Banded House-Wren is an inhabitant of the highlands of Peru.

*a*. Ad. sk. Arequipa, June 13, 1867. H. Whitely, Esq. [C.].

### 8. Troglodytes solstitialis.

Troglodytes solstitialis, *Sclater*, *P. Z. S.* 1858, p. 550; *id. Cat. Amer. B.* p. 23; *Scl. & Salv. Ex. Orn.* pl. xxiii. fig. 1; *Gray, Hand-l. B.* i. p. 191, no. 2622; *Taczan. P. Z. S.* 1874, p. 505; *Scl. & Salv. P. Z. S.* 1879, pp. 493, 593; *Salv. & Godm. Biol. Centr.-Amer., Ares*, i. p. 102.

Hylemathrous solstitialis, *Cab. J. f. O.* 1860, p. 406.

*Adult.* General colour above reddish brown, the head of the same colour as the back; on the back and on the scapulars a few indistinct dusky cross-markings; the upper tail-coverts distinctly barred across with narrow black lines; lesser and median wing-coverts like the back, the greater series barred with dusky blackish;

quills sepia-brown, notched with rufous-brown externally and barred with blackish brown, the inner secondaries barred across, the innermost barred down the length of the feather; centre tail-feathers rufescent brown, chequered with zigzag black bars which are not conterminous, the remainder dusky brown on the inner web, barred with rufous-brown and blackish on the outer; lores dusky; a rather broad eyelid and a ring of feathers round the eye light fulvous; cheeks and ear-coverts fulvous, the feathers edged with dull brown: the upper part of the ear-coverts uniform dark brown; throat and chest rufous-buff, the breast dull white, the sides of the body fulvous brown, deepening on the lower flanks; under tail-coverts buffy white, barred across with black; under wing-coverts and axillaries like the breast; quills dusky brown below, whitish along the edge of the inner web. Total length 3·25 inches, culmen 0·6, wing 1·85, tail 1·5, tarsus 0·75.

Considerable variation takes place with regard to the depth and intensity of the rufous colouring on the face and breast, which is much richer in some specimens than in others.

The Rufous-necked House-Wren is said to occur throughout the Andes of Peru and Ecuador, and extends through Colombia to Costa Rica.

*a*. ♂ ad. sk. Antioquia, U.S. of Colombia. T. K. Salmon, Esq. [C.].

### Subsp. *a*. **Troglodytes frater.**

Troglodytes solstitialis, *Scl. & Salv. P. Z. S.* 1879, p. 523 (*nec Scl.*).

*Adult.* Similar to *T. solstitialis*, but differs in the eyebrow and eyelid being white instead of rufous or buff, and in the whiter axillaries and under wing-coverts. Total length 4·2 inches, culmen 0·6, wing 1·95, tail 1·6, tarsus 0·8.

The White-browed House-Wren replaces the foregoing species in Bolivia. Whether it is this race which inhabits Peru I am not able to say, not having examined a specimen from the latter country.

*a*. Ad. sk. Bolivia. Mr. Bridges [C.].

### 9. **Troglodytes brunneicollis.**

Troglodytes hyemalis, *Scl. P. Z. S.* 1856, p. 290.
Troglodytes aedon ?, *Scl. P. Z. S.* 1859, p. 363.
Troglodytes brunneicollis, *Scl. P. Z. S.* 1858, p. 297, 1859, p. 372; *id. Cat. Amer. B.* p. 23; *id. P. Z. S.* 1862, p. 18; *Baird, Rev. Amer. B.* p. 144; *Scl. & Salv. Ex. Orn.* pl. xxiii. fig. 2; *Gray, Hand-l. B.* i. p. 191, no. 2643; *Sumichr. Mem. Bost. Soc. N. H.* i. p. 545; *Salv. & Godman, Biol. Centr.-Amer., Aves*, i. p. 103.
Hylemathrous brunneicollis, *Cab. J. f. O.* 1860, p. 406.

*Adult male.* General colour above rufous-brown, a little browner on the head, the feathers of the head rather pointed; back, rump, and upper tail-coverts with nearly obsolete cross bars, the rump with concealed spots of silky white; wing-coverts brown, the median coverts with white spots at the tip; greater coverts a little more

rufous externally than the back, with a small spot of buffy white at the tip; quills blackish brown, externally rufous-brown, barred narrowly with black, the inner secondaries barred across, the primaries externally chequered with fulvous spots; tail-feathers rufous-brown, very narrowly barred across with black, the black bars having a faint conterminous bar of pale fulvous brown, the outer feathers dusky brown on the inner webs, which are slightly mottled with darker brown bars of an irregular kind; lores dull white, with dusky edges to the feathers; a very broad eyebrow of rufous-buff, the feathers slightly mottled with dusky edges, producing a somewhat scaly appearance; eyelid rufous-buff; ear-coverts dark brown, streaked with rufous-buff on the lower part of the latter; cheeks rufous, the anterior feathers mottled with dusky brown; throat and breast light rufous, paler on the breast and abdomen, the latter having a few transverse dusky bars; sides of body rufous-brown, the lower flanks white at the ends and narrowly barred with wavy lines of blackish; thighs dark brown; under tail-coverts rufescent, tipped with white, and barred across with blackish; under wing-coverts and axillaries light rufous, the outer coverts mottled with dusky bases to the feathers; quills light ashy below, whitish along the edge of the inner web. Total length 4·5 inches, culmen 0·65, wing 2·0, tail 1·8, tarsus 0·75.

*Young.* Very similar to the adult, and rufescent below, but darker on the upper surface and mottled underneath, the feathers of the breast and sides edged and barred with blackish, producing a somewhat banded appearance; under tail-coverts nearly uniform rufous; throat and centre of breast and abdomen paler, and more of a fulvous-white colour, obscurely barred with dusky blackish.

*Hab.* The Brown-necked House-Wren is an inhabitant of Southern Mexico.

| | | |
|---|---|---|
| *a.* Juv. sk. | Mexico. | Purchased. |
| *b.* ♂ ad. sk. | La Parada, Mexico. | M. Boucard [C.]. |
| *c.* Ad. sk. | La Parada. | M. Sallé [C.]. |

### Subsp. *a.* Troglodytes rufociliatus.

Troglodytes brunneicollis, *Scl. & Salv. Ibis*, 1860, p. 273 (*nec Scl.*).

*Adult male* (Upper Chirostemon Forest, Volcan de Fuego, Guatemala, alt. 10,000 feet: O. Salvin). Similar to *T. brunneicollis*, from Mexico, but everywhere darker, especially on the tail, which is dark rufous-brown, barred with black; the under surface of the body is deep orange-rufous, as also the sides of the neck and eyebrow, the flanks marked and banded as in *T. brunneicollis*. Total length 4·4 inches, culmen 0·55, wing 1·85, tail 1·5, tarsus 0·7. (*Mus. Salvin and Godman.*)

*Young.* Differs from the adult in being lighter and more rufescent, the back barred with dusky blackish, and the feathers of the head having blackish margins; the under surface plentifully mottled, all the feathers being margined with dusky blackish. (*Mus. Salvin and Godman.*)

*Hab.* Guatemala.

The Rufous-browed House-Wren replaces the foregoing species in Guatemala.

## 34. UROCICHLA.

Pnoepyga, pt , *Moore et auct. recent.*

*Range.* Confined to the Khasia and Munipur Hills.

### 1. Urocichla longicaudata.

Pnoepyga longicaudata, *Moore, P. Z. S.* 1854, p. 74; *id. & Horsf. Cat. B. E.I. Co. Mus.* i. p. 398; *Jerd. B. Ind.* i. p. 490; *Gray, Hand-l. B.* i. p. 188, no. 2561; *Godw.-Aust. J. A. S. Beng.* xxxix. p. 101; *Hume, Str. F.* 1879, p. 93.

Tesia longicaudata, *Gray, Hand-l. B.* i. p. 188, no. 2561 (1869).

Pnoepyga chocolatina, *Godw.-Aust. & Walden, Ibis,* 1875, p. 252; *Hume, Str. F.* 1876, p. 218; *id. Str. F.* 1879, p. 93.

*Adult* (type of species). General colour above dark olive-brown, all the feathers edged with dusky brown, producing a somewhat scaly appearance everywhere except on the lower back, rump, and upper tail-coverts, which are uniform; lesser and median wing-coverts like the back, the greater series and the quills rather more reddish brown; tail-feathers dull reddish brown; lores dusky; cheeks and ear-coverts uniform dark olive-brown: under surface of body light ochraceous buff, the flanks olive-brown; the sides of the upper breast slightly mottled with dusky brown tips to the feathers, and more or less distinct whitish shaft-streaks; chin slightly whiter than the throat and the breast, with a few white feathers in the centre; vent and under tail-coverts rather more reddish buff than the rest of the under surface; under wing-coverts like the breast, the edge of the wing brown; quills sepia-brown below, narrowly edged with ashy along the inner web. Total length 4·5 inches, culmen 0·5, wing 1·95, tail 1·95, tarsus 0·85.

The Long-tailed Wren inhabits the Khasia and Munipur Hills. Originally described by Moore from "*N.* India," it was entered in the India Museum Catalogue as from Afghanistan. On the stand of the specimen was written Darjiling (*Griffith*); but even this alteration was probably wrong, and the bird was no doubt collected in the Khasia Hills by the late Mr. Griffith. It is well known that several of his Assamese and Khasia birds were entered as from Afghanistan (*cf.* Blyth, Ibis, 1872, p. 89). Col. Godwin-Austen has very kindly lent me the typical specimens of *Pnoepyga chocolatina*, which is not to be distinguished from *P. longicaudata* beyond being rather brighter in colour. This is probably due to the type being a female, while some allowance must also be made for the fading from exposure to the light in the gallery of the old India Museum.

| | | |
|---|---|---|
| *a.* [♀] ad. sk. | [Khasia Hills (*Griffith*).] | India Museum. (Type of species.) |
| *b, c, d, e.* Ad. sk. | Khasia Hills (*Jerdon*). | Gould Collection. |

## 35. SPELÆORNIS.

Type.

Spelæornis, *David & Oustalet, Ois. Chine,* p. 229 (1877) ..... S. troglodytoides.

*Range.* Confined to the hills of Western China.

*Key to the Species.*

*a.* Head and neck different from the back, slaty brown, barred with white and blackish; underneath orange-buff, with diamond-shaped spots of white ..... *troglodytoides,* p. 264.

*b.* Head and neck resembling the back, spotted with white and black; throat white, washed on the sides with orange; remainder of under surface light orange, barred with white and more narrowly with dusky..... *halsueti,* p. 265.

### 1. Spelæornis troglodytoides.

Pnoepyga troglodytoides, *Verr. Nouv. Arch.* vi. *Bull.* p. 34, vii. p. 30, ix. pl. 4.
Spelæornis troglodytoides, *David & Oustalet, Ois. Chine,* p. 228.

*Adult female* (type of species). General colour above rufescent brown, mottled with transverse black spots at the tips, relieved by a subterminal transverse bar of white, these white bars a little more distinct on the rump, the feathers of which are very loose and fluffy; scapulars transversely barred with dusky; wing-coverts dull ashy, transversely mottled with blackish cross bars, the bastard wing-feathers notched or barred with dull white; quills dark brown, barred with rufous-brown on the outer webs, the secondaries spotted along the shafts with rufous-buff, the inner webs uniform, the primaries externally barred with paler fulvous; upper tail-coverts like the back, the subterminal white bars less distinct; tail-feathers rufous-brown, regularly barred across with bars of dusky blackish, the dusky bars not strictly conterminous and about nineteen or twenty in number; some of the rufescent feathers mottled with whitish notches on the edge of the outer web; these notches more distinct on the outer feathers, which are ashy grey barred with black, with a few whitish bars near the tips; head and hind neck slaty brown, transversely barred with blackish and dull white; lores and an ill-defined eyebrow orange-buff, spotted with black, the latter with a few whitish streaks; round the eye a ring of orange-buff feathers; in front of the eye a dusky spot edged with whitish; cheeks and ear-coverts deep orange-rufous; sides of neck orange-rufous, barred with black and white behind the ear-coverts; entire under surface of body orange-rufous, the whole throat uniform, the breast and abdomen prettily varied with triangular spots of white, relieved by a small bar of black at the tip; sides of body rather darker and more orange-brown; under tail-coverts like the abdomen, but less distinctly spotted; thigh-feathers dark ashy brown, obscurely barred

with blackish and white; under wing-coverts and axillaries orange-brown; quills light brown below, with pale fulvescent notches on both inner and outer webs; "bill brownish on the upper mandible and at the point, whitish on the base of the lower mandible; feet and claws of a yellowish grey; iris reddish brown" (*A. David*).

Total length 4·5 inches, culmen 0·45, wing 1·09, tail 2·05, tarsus 0·8. (*Mus. Paris.*)

David's Wren is only found on the high mountains of Western Szetchuen and Moupin. Père David fancies that he also heard the note on the Tokian Mountains, but could not obtain a specimen.

## 2. Spelæornis halsueti.

Pnoepyga halsueti, *David, L'Institut,* ann. iii. no. 114; *id. Bull. Soc. Philom.* 1875.

Spelæornis halsueti, *David & Oustalet, Ois. Chine,* p. 229, pl. 15.

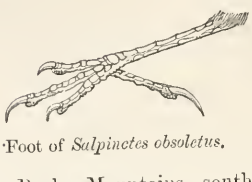
*Adult male* (type of species). General colour above olivaceous brown, mottled all over with longitudinal or diamond-shaped spots of white with a broad blackish bar, these black spots thicker on the head; wings clearer brown than the back and slightly more rufescent, the coverts indistinctly barred with dusky blackish, and with a few whitish spots or streaks; quills more distinctly barred with dusky blackish, the innermost with a small spot of fulvous white at the tip; upper tail-coverts like the back, with smaller spots of white; tail-feathers olive-brown, with narrow blackish cross bars, not always conterminous and broken up, the bars about twenty-two in number; lores dusky white, edged with black; ear-coverts uniform; cheeks orange-white on the fore part, with dusky blackish cross bars; throat white, with a few orange bars on the fore neck; remainder of under surface light orange, completely mottled with broad white bars edged with dusky brown; sides of body olive-brown, with less distinct bars; under tail-coverts like the abdomen, less distinctly spotted; under wing-coverts and axillaries yellowish buff; quills ashy brown, with ashy fulvous margins to the inner webs; "beak brownish on the upper mandible and flesh-colour on the lower one; feet and claws whitish; iris red" (*A. David*). Total length 5 inches, culmen 0·45, wing 1·85, tail 2·1, tarsus 0·8. (*Mus. Paris.*)

Halsuet's Wren is only known by the unique type in the Paris Museum, procured by Père David in Tsinling, China.

## 36. SALPINCTES.

Type.

Salpinctes, *Cabanis, Arch. f. Naturg.* xiii. p. 323 (1847). S. obsoletus.



Foot of *Salpinctes obsoletus*.

*Range.* From the Rocky Mountains southwards through the highlands of Mexico to Guatemala. Island of Guadaloupe.

### 1. Salpinctes obsoletus.

Troglodytes obsoletus, *Say in Long's Exped. Rocky Mts.* ii. p. 4 (1823); *Audub. B. Amer.* pl. cccl.x.; *id. Orn. Biogr.* iv. p. 443; *id. B. Amer.* 8vo, ii. p. 113, pl. 116; *Gray, Gen. B.* i. p. 158.
Myiothera obsoleta, *Bp. Amer. Orn.* i. p. 6, pl. i. fig. 2.
Troglodytes latifasciatus, *Licht. Preis-Verz. mex. Vög.* (1830) p. 2; *Gray, Gen. B.* i. p. 158; *Cab. J. f. O.* 1863, p. 57.
Thryothorus obsoletus, *Bp. Comp. List B. Eur. & N. Amer.* p. 11.
Troglodytes obsoleta, *Nuttall, Man.* 1832, p. 425.
Salpinctes obsoletus, *Cab. Arch. f. Naturg.* 1847, p. 324; *Bp. Consp.* i. p. 224; *Baird, B. N. Amer.* p. 357; *Scl. P. Z. S.* 1859, p. 371; *Scl. & Salv. Ibis,* 1860, p. 30; *Scl. Cat. Amer. B.* p. 18; *Baird, Review Amer. B.* p. 110; *Coues, Ibis,* 1865, p. 164; *Scl. & Salv. Nomencl. Av. Neotr.* p. 6; *Coues, B. N.-West,* p. 27; *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* p. 135, pl. 8. fig. 3; *Coues, Birds Color. Vall.* p. 159; *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 71; *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 14 (1881).
Cyphorhinus obsoletus, *Gray, Hand-l. B.* i. p. 194, no. 2673.

*Adult* (Yellowstone River, Dr. F. V. Hayden). General colour above dark ashy grey, mottled with spots of white, relieved by a subterminal blackish spot; rump cinnamon-rufous, with the same spots as on the back, but not so distinctly indicated; upper tail-coverts brown, varied with blackish bars, and having white spots subterminally relieved with black exactly like the back; centre tail-feathers light brown, barred across with blackish brown, the tips pale cinnamon vermiculated with blackish; the remainder of the tail-feathers ashy brown, pale cinnamon at the tip, before which is a broad black band, the ashy brown portion of the feather also faintly barred with blackish brown; outer tail-feather with three bars of pale cinnamon, the tip vermiculated with black; lesser wing-coverts like the back; the median and greater coverts and quills rather clearer brown than the back, barred with blackish brown, and tipped with the same white spots as the back, excepting on the primaries, where the bars are scarcely perceptible on the outer web, and there are no white spots at the tip; head like the back, but the spots smaller and more rounded; lores and a narrow

eyebrow isabelline white, slightly tinged with rufous; ear-coverts and sides of face dull white, the hinder part of the former dusky brown; throat and breast dull white, with mesial black spots and streaks; the sides of the upper breast ashy brown; sides of body, flanks, and under tail-coverts cinnamon-buff, as also the axillaries; the under tail-coverts broadly barred with black; under wing-coverts buffy white, with dusky spots and bars; quills dusky brown, ashy whitish along the inner web; "bill dusky, the edges pale yellow; feet dusky: iris hazel" (*Audubon*). Total length 5·2 inches, culmen 0·8, wing 2·7, tail 1·95, tarsus 0·9. (*Mus. Salvin and Godman.*)

The sexes are stated by Dr. Coues to be alike in coloration.

*Obs.* The Rock-Wren is a migratory bird, ranging to Guatemala in winter. A specimen collected by Mr. Salvin at the Cuesta of Cachil in Vera Paz, in November, is identical with another from the Yellowstone River, obtained by Dr. Hayden in September.

On the other hand, two specimens from Mexico are remarkable for their much lighter coloration, and for the smallness of the white spots on the upper surface and the narrowness of the streaks below. These differences do not appear to me to be the result of abrasion of plumage to which the species is liable from its habits, but rather to indicate a pale resident form in Mexico. This can only be determined by a larger series than is at present available. These Mexican birds may also be the young birds of the year in their first-moulted winter dress.

*Young* in first plumage (49th parallel, July 21, 1874: Dawson). Differs from the adult in the more uniform plumage, absence of spots on the upper surface and of streaks on the under; wings and tail much as in the adult; head and neck uniform ashy brown, with the faintest trace of cross bars; back pale cinnamon, as well as the rump and under tail-coverts, the upper back more distinctly barred with dusky blackish brown; wing-coverts pale cinnamon, barred like the back, the greater coverts more broadly; scarcely an indition of an eyebrow, which is represented merely by a few light reddish feathers; eyelid also pale reddish; ear-coverts ashy whitish, washed with pale reddish on the hinder margin; under surface of body dull whitish, the sides of the body and under tail-coverts isabelline; the under wing-coverts and axillaries of the same colour; quills dusky, with isabelline margins to the inner webs. Total length 5·4 inches, culmen 0·7, wing 2·9, tail 2·35, tarsus 0·95.

*Obs.* Young birds killed in August in Guatemala, by Mr. Salvin, appear to have lost the freshness which characterized the specimen just described. The plumage is much abraded and the bars on the upper surface are very distinct, while they still retain the uniform head. Two of the specimens are in full moult into the adult plumage.

The Rock-Wren is found along the Rocky Mountains, through the highlands of Mexico to Guatemala.

| | | |
|---|---|---|
| *a.* Juv. sk. | 49th parallel (*G. Dawson*). | N. A. Boundary Commission. |
| *b.* Juv. sk. | West side of Rocky Mountains. | J. K. Lord, Esq. [P.]. |

| | | |
|---|---|---|
| *c*. Ad. sk. | Mexico. | |
| *d*. ♂ ad. sk. | Puebla, Mexico. | |
| *e*. Juv. sk. | Guatemala. | J. Gould, Esq. |

### 2. Salpinctes guadelupensis.

Salpinctes obsoletus guadelupensis, *Ridgw. Bull. U.S. Geol. & Geogr. Survey*, ii. p. 185; *id. Bull. Mus. U.S. Nat. Mus.* no. 21, p. 14 (1881).

*Adult.* Above dull greyish brown, indistinctly speckled with dusky, and becoming light cinnamon-rufous on the rump; wings and tail indistinctly barred with dusky; tail-feathers, except the middle pair, broadly tipped with pale cinnamon, this preceded by a less regular and more broken black bar; the cinnamon frequently finely mottled and dusky. Chin, throat, and jugulum dull white, the jugulum distinctly streaked with dusky; rest of the lower parts nearly plain dirty white, becoming light pinkish cinnamon on the sides; crissum heavily barred with black. *Male*—wing 2·60–2·75 inches, tail 2·20–2·30, bill 0·58–0·60, tarsus 0·80–0·90, middle toe 0·50–0·55. *Female*—wing 2·50–2·60, tail 2·00–2·20, bill 0·55–0·60, tarsus 0·80–0·90, middle toe 0·50–0·55. (*Ridgway.*)

Mr. Ridgway makes the following remarks:—"The upper tail-coverts are strongly barred transversely. There is a tolerably well-defined light superciliary stripe. In no. 70049 there is a deep reddish-brown suffusion across the breast, apparently an accidental stain from contact with ferruginous earth. The differences exhibited in these insular specimens from the continental series are quite slight, but they are so constant as to demand recognition. As to colours, there is no difference beyond slightly darker shades throughout; the lower parts being soft pinkish cream-colour instead of creamy white, the other portions of a darker shade to correspond." He also gives a series of measurements to show the smaller size of the insular bird.

The Guadeloupe Rock-Wren represents the foregoing species in the island of Guadeloupe, off the coast of Lower California.

## 37. ANORTHURA.

| | Type. |
|---|---|
| Troglodytes, *Cuvier, Règn. An.* 1817, vol. i. p. 370 (*nec Vieill.*) ..... | A. troglodytes. |
| Anorthura, *Rennie, ed. Mont. Orn. Dict.* 2nd ed. p. 570 (1831) ..... | A. troglodytes. |

Leg of *Anorthura troglodytes*.

*Range.* The whole of the northern part of the Old World, including nearly the entire Palæarctic Region. Not found in the

Azores or Canaries, but occurring in Algeria; absent in Egypt and North-eastern Africa; rarely found in Palestine; occurring in Persia and throughout the Himalayas to Western China. Absent in Siberia, as far as is known, excepting in the eastern portion and Japan. Alaska and the Aleutian Isles, and found throughout the greater portion of North America.

*Key to the Species.*

*a*. No white spots on the throat.
  *a'*. Breast pale, whitish or whity brown.
    *a''*. Upper surface rufous-brown; the mantle uniform and without blackish cross bars; tail much more rufous than the back. *troglodytes*, p. 269.
    *b''*. Upper surface dark brown, the mantle barred with dusky blackish; tail not much more rufous than back ..... *borealis*, p. 272.
    *c''*. Upper surface pale isabelline brown, with only a few indications of dusky cross bars on the mantle ..... *pallida*, p. 273.
  *b'*. Breast pale, reddish buff or vinous rufous.
    *d''*. Head and mantle perceptibly darker brown than the lower back and rump.
      *a'''*. Larger: bill 0·7 inch, wing 2·1..... *alascensis*, p. 273.
      *b'''*. Smaller: bill 0·55 inch, wing 1·8 .... *pacifica*, p. 274.
    *e''*. Head and mantle rufous-brown, very little lighter than the rest of the upper surface, which has a generally rufous appearance.
      *c'''*. Throat whitish; breast a little more rufescent, but not spotted with white. *hiemalis*, p. 275.
      *d'''*. Throat vinous brown, of the same colour as the breast, which has white spots and small dusky bars ..... *fumigata*, p. 276.
  *c'*. Breast dark brown.
    *f''*. Head dark brown; throat and under surface rather rufescent brown; the cross bars very distinct ..... *nipalensis*, p. 277.
    *g''*. Head light brown; throat and under surface ashy brown, with faint and narrow cross bars of dusky ..... *neglecta*, p. 278.
*b*. With conspicuous heart-shaped spots of white on the throat like the rest of the under surface of body; upper surface uniform, not barred, but having small white spots on the hinder crown, neck, and back ..... *formosa*, p. 279.

## 1. Anorthura troglodytes.

Common Wren, *Albin, Nat. Hist. B.* i. p. 51, pl. liii. fig. B.
Le Roitelet, *Brisson, Orn.* iii. p. 425; *Daubent. Pl. Enl.* vi. pl. 651. fig. 2.
Motacilla troglodytes, *Linn. Syst. Nat.* i. p. 337.
Sylvia troglodytes, *Scop. Ann.* i. p. 160; *Lath. Ind. Orn.* ii. p. 547; *Temm. Man. d'Orn.* i. p. 233; *Meyer u. Wolf, Taschenb.* i. p. 251*a*; *Werner, Atlas, Insectivores*, pl. 61; *Yarr. Br. B.* ii. p. 162.

Le Troglodyte, vulgairement et proprement le Roitelet, *Montb. Hist. Nat.* v. p. 352, pl. 16. fig. 1.
Wren, *Penn. Brit. Zool.* ii. p. 268; *Lath. Gen. Syn.* ii. pt. 2, p. 506.
Troglodytes europæus, *Vieill. N. Dict. d'Hist. Nat.* xxxiv. p. 511; *Leach, Syst. Cat. Mamm. etc. Brit. Mus.* p. 25; *Gould, B. Eur.* ii. pl. 130; *Blyth, Cat. B. Mus. As. Soc.* p. 158; *Bp. Consp.* i. p. 221; *Kjærb. Orn. Dan.* pl. xxiv. fig. 5; *Bailly, Orn. Savoie*, ii. p. 457; *Schl. Vog. Nederl.* pl. 65; *Sundev. Sv. Fogl.* pl. xv. fig. 3; *Jaub. et Barth.-Lapomm.* p. 269; *Schl. Dier. Nederl.* pl. 6. fig. 9; *Bacd. Eier europ. Vög.* pl. 43. fig. 1; *Gould, B. Gt. Br.* ii. pl. 63; *Filippi, Viagg. Pers.* p. 346; *Bettoni, Ucc. nidif. Lomb.* i. tav. 49; *Loche, Expl. Sci. Algér., Ois.* i. p. 290; *Fritsch, Vög. Eur.* tab. 22. figs. 17, 18; *Keul. Onze Vog.* i. pl. 19.
Troglodytes punctatus, *Boie, Isis*, 1822, p. 551; *C. L. Brehm, Lehrb. Naturg. europ. Vög.* p. 318.
Troglodytes parvulus, *Koch, Syst. baier. Zool.* i. p. 161; *Naum. Vög. Deutschl.* iii. p. 725, Taf. 83. fig. 4; *Gray, Gen. B.* i. p. 158; *Cab. Mus. Hein.* Th. i. p. 77; *Linderm. Vög. Griechenl.* p. 75; *Tristr. Ibis*, 1866, p. 284; *Degl. & Gerbe, Orn. Eur.* i. p. 549; *Doderl. Avif. Sicil.* p. 135; *Droste, Vogelw. Borkum*, p. 91; *Gray, Hand-l. B.* i. p. 188, no. 2562; *Salvad. Ucc. Born.* p. 74; *Newt. ed. Yarr. Br. B.* p. 400; *Harting, Handb. Brit. B.* p. 19; *Dresser, B. Eur.* pt. 23; *Irby, B. Gibr.* p. 99; *Blanf. East. Pers.* ii. p. 222; *Tacz. Bull. Soc. Zool. France*, i. p. 139.
Troglodytes vulgaris, *Fleming, Brit. An.* p. 73; *Temm. Man. d'Orn.* iii. p. 160.
Troglodytes regulus, *Meyer, Zusätze &c., Taschenb. deutschl. Vög.* p. 96 (1822).
Troglodytes domesticus, *Brehm, Isis*, 1828, p. 1284 (*nec Bartr.*); *id. Vög. Deutschl.* p. 451.
Troglodytes sylvestris, *Brehm, Isis*, 1828, p. 1284; *id. Vög. Deutschl.* p. 455, pl. xxiii. fig. 6.
Anorthura communis, *Rennie, Montagu's Orn. Dict.* 2nd ed. p. 570.
Troglodytes communis, *Gould, P. Z. S.* 1834, p. 51; *Hewits. Eggs Brit. B.* i. p. 244, pl. 62. fig. 2; *G. R. Gray, List Br. B.* p. 40; *R. Gray, B. West Scotl.* p. 194; *Saxby, B. Shetl.* p. 142.
Anothura troglodytes, *Macg. Br. B.* iii. p. 15, fig. 188.
Troglodytes troglodytes, *Schlegel, Rev. Crit.* p. xliv.
Troglodytes tenuirostris, *Brehm, Vogelf.* p. 238.
Troglodytes naumanni, *Brehm, Vogelf.* p. 238.
Troglodytes verus, *Burm. Syst. Uebers.* iii. p. 137.

*Adult.* General colour above rufous-brown, the head and neck uniform, but the mantle and entire back barred with dusky blackish, the rump varied with a few half-concealed spots of white, and indications of similar spots on the scapulars; wing-coverts like the mantle, and barred with dusky blackish, the median series with a tiny white spot at the tip; greater coverts rufous-brown, with distinct narrow cross lines of black; quills dusky brown, externally rufous barred with black, the primaries chequered with whitish notches on the outer web; tail-feathers rufous, regularly barred across with black, about eleven bars being visible on the centre feathers; lores and a distinct eyebrow dull white, washed with brown; eyelid dull white; sides of face and ear-coverts light brown, streaked with darker brown, the upper edge of the ear-coverts dark

brown, forming a broad streak; under surface of body light reddish brown, whiter on the throat, and whity brown on the chest; sides of body more decidedly rufous, barred with dusky blackish, as also the abdomen, which is whity brown; under tail-coverts rufous, narrowly barred with black, the feathers tipped with white; under wing-coverts dull white, the axillaries slightly washed with rufous; quills ashy brown below, whitish along the edge of the inner web, and chequered with rufous notches on the outer; "bill horn-brown, lighter at base of lower mandible; legs light brown; iris brown" (*Dresser*). Total length 4 inches, culmen 0·55, wing 1·8, tail 1·25, tarsus 0·7.

The sexes do not differ in coloration, and measure as follows:—

| | Total length. in. | Culmen. in. | Wing. in. | Tail. in. | Tarsus. in. |
|---|---|---|---|---|---|
| *a*. ♂. Cambridgeshire (*Baker*) .. | 4·0 | 0·55 | 1·9 | 1·5 | 0·75 |
| *b*. ♀. Cambridgeshire (*Baker*) .. | 4·0 | 0·55 | 1·85 | 1·4 | 0·7 |

*Young*. Reproduces the colours of the adults, but has the wings and tail less distinctly banded: underneath, the breast is a little more rufescent, the feathers also obscurely mottled with brown edgings: abdomen also rufescent, and with scarcely any dusky bars.

The Common Wren occurs all over Europe as high as 65° N. lat. in Scandinavia and Northern Russia, but becomes rarer on the Ural, and occurs more frequently in the Volga district in winter. It is also found in North Africa, occurring in all the countries bordering the Mediterranean, but apparently not reaching Egypt, Northern Palestine seeming to be its furthest southern limit in this direction. It has been said to occur in Madeira and the Canaries; but this requires confirmation, recent observers not having met with the species. Westwards it ranges through Asia Minor to Persia, where it has been obtained on the shores of the Caspian and near Shiraz. Mr. Dresser considers the pale race from Central Asia to be the same as the European bird, but, in my opinion, it is always distinguishable.

| | | |
|---|---|---|
| *a*. Var. st. | England. | |
| *b*. Ad. sk. | Devonshire. | Col. Montagu [P.]. |
| *c*. Ad. st. | Devonshire. | Col. Montagu [P.]. |
| *d*. Ad. sk. | Avington, Hants, Nov. 11, 1873. | R. B. Sharpe, Esq. [P.]. |
| *e*. Ad. st. | Cookham, Berkshire. | Mr. W. Briggs [P.]. |
| *f*. Pull. sk. | Cookham, Berkshire, June 1862. | Gould Collection. |
| *g*. Ad. sk. | Hampstead. | R. B. Sharpe, Esq. [P.]. |
| *h*, *i*. Ad.; *k*, *l*. Pull. st. | Cambridgeshire. | Mr. J. Baker [C.]. |
| *m*,*n*. ♂ ♀ ad. sk. | Cambridgeshire, Jan. 1866 (*J. Baker*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *o*. Ad. sk. | France. | R. B. Sharpe, Esq. [P.]. |
| *p*. Ad. st. | France. | R. B. Sharpe, Esq. [P.]. |

| | | |
|---|---|---|
| *q*. Ad. sk. | Belgium, Dec. 13, 1870. | Brussels Museum [P.]. |
| *r*. ♂ ad. sk. | Near Leyden, Jan. 25, 1880. | R. B. Sharpe, Esq. [P.]. |
| *s*. Ad. sk. | Near Leyden, April 1879. | R. B. Sharpe, Esq. [P.]. |
| *t*. Ad. st. | Heligoland. | H. Seebohm, Esq. [P.]. |
| *u*. ♂ ad. sk. | Heligoland, March 1877, (*L. Gätke*). | H. Seebohm, Esq. [P.]. |
| *v*. Ad. sk. | Rome (*P. L. Sclater*). | Gould Collection. |

### 2. Anorthura borealis.

Sylvia troglodytes, *Faber, Leben. d. hoch. Vög.* p. 321 b (*nec Lath.*).
Troglodytes europæus, *P. A. Holm. Nat. Tids.* 1847, p. 428 (*nec Leach*).
Troglodytes punctatus, *P. A. Holm. t. c.* p. 523 (*nec Brehm*).
Troglodytes borealis, *J. C. H. Fischer, J. f. O.* 1861, p. 14, pl. i.; *Baed. Eier europ. Vög.* pl. 76. fig. 6; *Newton, in Baring-Gould's Iceland, App.* A, p. 408; *Feilden, Zool.* 1872, p. 3222; *Dresser, B. Eur.* pt. xxiii.
Troglodytes parvulus, *Preyer, Reis. u. Island*, p. 393 (*nec Koch*).

*Adult.* General colour dark brown, with a few indications of dusky bars on the mantle, these becoming much more distinct on the lower back, rump, and upper tail-coverts, which are all a little more rufescent; wing-coverts clear brown, barred with blackish, more distinctly on the greater series, the median coverts with tiny diamond-shaped spots at the tip; quills dusky brown, externally rufescent barred with blackish, the primaries chequered with notches of fulvous or whity brown; tail-feathers rufous-brown, narrowly barred with blackish, about twelve being perceptible on the middle feathers; lores and a narrow superciliary streak whity brown; ear-coverts dark brown on the upper part, the lower part whity brown slightly mottled with brown edges to the feathers and whitish shaft-lines; cheeks also whity brown and mottled like the ear-coverts; throat and chest pale brown, becoming whity brown in the centre of the breast and abdomen; the sides of the breast with faint blackish cross lines, which become stronger and more marked on the flanks and abdomen; under tail-coverts rufous, barred with black and tipped with white; axillaries and under wing-coverts very pale brown, with dusky cross bars; quills dark brown, ashy fulvous along the margin of the inner web. Total length 4·2 inches, culmen 0·55, wing 1·75, tail 1·4, tarsus 0·8.

*Young.* Rather lighter in colour than the adult, but more dusky, and not so strongly barred both above and below; ear-coverts more uniform and not so strongly mottled. (*Mus. Howard Saunders.*)

The Faeroe-Island Wren is a common bird in the Faeroe Islands. It is a large dark race of *A. troglodytes*, readily recognizable on comparison of specimens. It also occurs in Iceland.

| | | |
|---|---|---|
| *a*. Ad. sk. | Thorshavn, Faeroe Isles, Nov. 8, 1880 (*H. C. Müller*). | Edward Hargitt, Esq. [P.]. |

### 3. Anorthura pallida *.

Troglodytes nepalensis, *Severtz. Turkest. Jevotn.* p. 66.
Troglodytes europæus, *Severtz. t. c.* p. 138.
Troglodytes parvulus, *Dresser, Ibis*, 1875, p. 175.
Troglodytes pallida, *Hume, Str. F.* 1875, p. 219, note; *Scully, t. c.* 1876, p. 139.

*Adult male.* Above pale brown, the head and neck uniform, the lower scapulars, back, and rump indistinctly barred across with dusky brown; wings a little more rufescent, and rather more broadly barred with dusky brown than the back, the bars being also wider apart, the bastard wing inclining to whitish and crossed with broad zigzag bars of dusky brown: quills brown, externally rufescent, barred with dusky brown, the interspaces on the primaries rather more whitish and producing a chequered appearance; upper tail-coverts and tail rather more rufous than the rest of the upper surface, and barred across with blackish, the bars on the latter being eleven in number; lores and a narrow line over the eye creamy white, the sides of the face also creamy white, shading off into light brown on the ear-coverts, which resemble on their hinder part the sides of the neck; under surface of body pale isabelline, the breast with a few zigzag spots of brown, becoming more distinct on the abdomen; flanks browner, with dull brown cross bars and a few whitish tips to the feathers; the under tail-coverts barred with dark brown, the interspaces being whitish, slightly tinged with rufous; "upper mandible brown, the lower one yellowish horny; legs and feet brownish fleshy; claws brown" (*Scully*). Total length 4 inches, culmen 0·5, wing 1·95, tail 1·5, tarsus 0·7.

The Pale Wren represents *A. troglodytes* in Central Asia.

| | | |
|---|---|---|
| *a, b.* ♂ ♀ ad. sk. | Turkestan, Oct. 18, 1864 (*Severtzoff*). | Gould Collection. |

### 4. Anorthura alascensis.

Troglodytes alascensis, *Baird, Trans. Chicago Acad.* i. p. 315, pl. 30. fig. 1; *Dall & Bann. t. c.* p. 280.
Anorthura alascensis, *Coues, Key N.-Amer. B.* p. 87; *id. Birds Color. Vall.* p. 178; *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 15 (1881).
Anorthura troglodytes, var. alascensis, *Coues, Key N.-Amer. B.* p. 351; *id. Birds N.-West*, p. 33.
Troglodytes hyemalis, var. alascensis, *Dall, Pr. Calif. Acad.* 1873; *Sclater, Ibis*, 1874, p. 153, note.

*Adult male.* General colour above rufescent brown, inclining to clearer rufous on the lower back and rump, the rump having half-concealed spots of silky white: the scapulars also with some half-concealed streaks of white; lesser and median wing-coverts dusky brown edged with rufous-brown, with a white spot at the tip of some of the inner ones, before which is a bar of blackish; greater wing-coverts rufous-brown, barred across with lines of black, and having

* Dr. Severtzoff, on the occasion of his last visit to England, informed me that he had called this bird *Troglodytes tianschanica*, but I have not been able to find that he has published this name.

remains of a small obsolete white spot at the tips: quills dusky brown, externally rufous-brown barred with dusky, the primaries chequered with spots of rufous-buff or buffy whitish; upper tail-coverts clearer rufous, with obsolete bars of dusky blackish; tail-feathers rufous-brown, margined with clearer rufous, especially on the outer feathers, which incline to buffy whitish; all the feathers barred across with dusky blackish, about eleven bars being perceptible on the inner webs; lores and a narrow eyebrow pale sandy whitish, the latter slightly mottled with dusky tips to the feathers; sides of face also sandy whitish or light fulvous, the ear-coverts mottled with brown edges to the feathers and appearing somewhat streaked, the upper edge of these ear-coverts dark brown; throat and breast uniform sandy brown, with a few indications of obsolete whitish spots on the latter; the flanks rufous-brown, thickly mottled with blackish and white bars, the latter predominating on the abdomen, which is consequently paler and rather more ashy; under tail-coverts rufous-brown, broadly tipped with white, before which is a distinct subterminal bar of black, all the feathers being also barred with blackish; under wing-coverts and axillaries light fulvous brown, with a few obsolete indications of dusky bars; the edge of the wing rather more ashy, the feathers tipped with white; quills light brown below, pale ashy along the edge of the inner web. Total length 4·5 inches, culmen 0·65, wing 2·1, tail 1·5, tarsus 0·75.

*Young.* More dusky than the adults and greyer on the throat, the breast mottled with pale whitish centres to the feathers. (*Mus. Salvin and Godman.*)

The Alaska Wren is confined to the Aleutian and Pribylow islands and Alaska.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Amaknak Island, Unalashka, Oct. 21, 1871 (*W. H. Dall*). | Smithsonian Institution [P.]. |

### 5. Anorthura pacifica. (Plate XVI. fig. 1.)

Troglodytes hyemalis (*nec Wils.*), *Coop. & Suckl. P. R. Rep.* xii. 1860, p. 191; *Cooper, Orn. Calif.* p. 73.
Troglodytes hyemalis, var. pacificus, *Baird, Review Amer. B.* p. 145.
Anorthura troglodytes pacificus, *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 15 (1881).

*Adult male.* General colour above dark rufous-brown, inclining to dusky brown on the head and mantle, the lower part of the latter with obscure blackish bars, which become more apparent on the lower back, rump, and upper tail-coverts, the latter being more rufous; on the rump some half-concealed spots of white; lesser and median wing-coverts dusky brown, margined with fulvous brown, with a white spot at the tips of the latter series; greater coverts externally rufous-brown, notched with black, which imparts a spotted appearance to this part of the wing, a few of the feathers having also slight indications of tiny white spots near the tips; quills dusky brown, externally deep rufous, and notched with blackish spots, the primaries externally chequered with pale fulvous

notches; tail feathers deep rufous, banded with black, about eleven bars being discernible on the centre tail-feathers; lores and a tolerably distinct eyebrow pale fulvous brown, ear-coverts fulvous brown, mottled with dusky edgings and whitish shaft-lines to the feathers, the upper margin of the ear-coverts dark brown; cheeks and throat rufous-brown, the sides of the body umber-brown; the lower flanks barred with black, and more narrowly with white, the lower abdomen broadly barred with white and with distinct black bars, this portion of the body appearing lighter in contrast to the flanks; thighs rufous barred with black; under tail-coverts rufous, barred with black and tipped with white, before which is a broad black bar; axillaries and under wing-coverts pale fulvous brown, obscurely barred with dusky, a little more distinctly on the latter; quills dusky brown, more ashy along the margin of the inner web; "iris brown." Total length 3·6 inches, culmen 0·55, wing 1·8, tail 1·2, tarsus 0·75.

*Adult female.* Similar to the male in colour, but a little more mottled on the breast with pale nearly obsolete spots of buffy whitish. Total length 3·5 inches, culmen 0·55, wing 1·8, tail 1·2, tarsus 0·7.

*Young.* Browner than the adults, with scarcely any shade of rufous on the wings and tail, which are more coarsely barred than in the old birds; scapulars rather distinctly barred with blackish; the throat and centre of abdomen whity brown; the breast and sides of the body umber-brown, with a few dusky spots and bars on the under surface, but no sign of the strongly-marked cross bars which distinguish the adults.

The Pacific Wren inhabits the Pacific coast of the United States, from Washington Territory and Vancouver Island to the north of San Francisco Bay. It appears to me to be more nearly allied to *A. alascensis* and *A. fumigata* than to *A. troglodytes* and *A. hiemalis*.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Vancouver Island, June 4. | A. Forrer [C.]. |
| *b.* ♀ ad. sk. | Vancouver Island, Nov. 27. | A. Forrer [C.]. |
| *c.* Pull. sk. | Vancouver Island, June 24. | A. Forrer [C.]. |

### 6. Anorthura hiemalis.

Sylvia troglodytes, *Wilson, Amer. Orn.* i. p. 139, pl. viii. fig. 6.
Troglodytes hiemalis (*nec L.*), *Vieill. N. Dict. d'Hist. Nat.* xxxiv. p. 514.
Troglodytes europæus, *Bp. Journ. Philad. Acad.* iv. p. 188 (*nec V.*).
Troglodytes hyemalis, *Audub. B. Amer.* pl. ccclx.; *Sw. Faun. Bor.-Amer., Birds,* p. 318; *Audub. Orn. Biog.* iv. p. 430; *Bp. Comp. List B. Eur. & N. Amer.* p. 11; *Audub. B. Amer.* 8vo, ii. p. 128, pl. 121; *Nutt. Man.* 1840, p. 481; *Gray, Gen. B.* i. p. 158; *Bp. Consp.* i. p. 222; *Sclater, Cat. Amer. B.* p. 23; *Baird, Review Amer. B.* p. 145; *Dresser, Ibis,* 1865, p. 485; *Maynard, B. Florida,* p. 40; *Gray, Hand-l. B.* i. p. 189, no. 2566.
Troglodytes (Anorthura) hyemalis, *Baird in B. N. Amer.* p. 369.
Anorthura hyemalis, *Coues & Prent. Smiths. Rep.* 1861–62, p. 410*.
Anorthura troglodytes, var. hiemalis, *Coues, Key N.-Amer. B.* p. 87, fig. 30; *id. B. N.-West,* p. 33.

* For further local references and complete synonymy, see Coues, B. Color. Vall. p. 176.

Troglodytes parvulus, var. hiemalis, *Ridgw. Bull. Essex Inst.* v. p. 180; *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* i. p. 155, pl. 9. figs. 9, 10.
Anorthura troglodytes hyemalis, *Coues, B. Color. Vall.* p. 176; *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 15 (1881).

*Adult.* General colour above rufous, the head a little browner, the mantle and scapulars with half-concealed small spots of white, larger and more in the form of streaks on the rump; all these white spots heightened by conterminous dusky bars; wing-coverts rufous barred with dusky, and having small spots of white near the tips of the feathers; quills dusky blackish, externally rufous barred with dusky, the primaries very distinctly chequered with black bars and fulvous notches; upper tail-coverts and tail-feathers rufous with narrow dusky cross bars, about twelve in number on the centre feathers; lores and a tolerably well-marked eyebrow, as well as the feathers round the eye, whity brown; ear-coverts whity brown tinged with rufous, the feathers mottled with dusky-brown edges, the upper margin of the ear-coverts rufous-brown; on the sides of the neck a few whity-brown spots; cheeks whity brown with a tinge of rufous; throat ashy whitish with a tinge of rufous; fore neck and breast pale rufous-brown, with obsolete pale whity-brown centres to the feathers, the lower breast with a few small spots of dusky blackish; the flanks and abdomen more reddish brown, barred with blackish and white, producing a dusky appearance; under tail-coverts rufous, very conspicuously barred with blackish and having a very broad subterminal white bar; under wing-coverts and axillaries dull whitish, with a very faint tinge of brown, and having tiny narrow dusky bars, more distinct near the edge of the wing; quills dusky brown below, ashy whitish along the margin of the inner web; "bill dusky brown, the basal edges of the upper and two thirds of the lower mandible paler: tarsi and toes pale greenish brown, as are the claws; iris brown" (*Audubon*). Total length 3·5 inches, culmen 0·5, wing 1·75, tail 1·2, tarsus 0·7.

The Winter Wren is found over the whole of North America, with the exception of the Pacific coast.

| | | |
|---|---|---|
| *a.* Ad. sk. | Toronto, Canada (*J. Whitely*). | R. B. Sharpe, Esq. [P.]. |
| *b.* ♀ ad. sk. | Washington, D. C. | Smithsonian Institution [P.]. |

### 7. Anorthura fumigata. (Plate XVI. fig. 2.)

Troglodytes fumigatus, *Temm. Man. d'Orn.* iii. p. 161; *Bp. Consp.* i. p. 222; *Gray, Hand-l. B.* i. p. 188, no. 2564; *Swinh. P. Z. S.* 1871, p. 351; *Dybowsk. J. f. O.* 1872, p. 253; *Swinh. Ibis*, 1874, p. 152; *id. Ibis*, 1875, p. 143; *Dybowsk. J. f. O.* 1874, p. 334; *Prjev. in Dawson Rowley's Orn. Misc.* ii. p. 167; *Tacz. Bull. Soc. Zool. France*, ii. pp. 135, 137; *David & Oustal. Ois. Chine*, p. 225; *Blakist. & Pryer, Ibis*, 1878, p. 238; *Seebohm, Ibis*, 1879, p. 37.
Troglodytes vulgaris, *Temm. & Schl. Faun. Japon., Aves*, p. 69.
Anorthura fumigatus, *Coues, B. Color. Vall.* p. 178.

*Adult male.* General colour above dark rufous-brown, slightly

mottled with cross bars of dusky blackish, more distinct on the rump and upper tail-coverts, which are brighter rufous; the head more dusky rufous-brown than the back; wing-coverts like the back, the greater series brighter rufous, all more or less distinctly barred with blackish, the median and lesser coverts with a small diamond-shaped spot of white near the tip; quills dusky brown, externally rufous barred with blackish, the secondaries barred across both webs, the primaries chequered on the outer web with rufescent or reddish-white notches; tail-feathers deep rufous, barred with black, about seven bars being discernible; a faint indication of a lighter rufous-brown eyebrow; sides of face pale rufous-brown, the ear-covert edged with blackish, causing a streaked appearance, the shafts of the ear-coverts being also buffy whitish; cheeks and under surface of body deep vinous rufous, mottled with obsolete dusky cross bars; breast with tiny transverse spots of dusky, with an obsolete mark of white before the tips of the feather; sides of body and abdomen barred across with dusky blackish and dull white, as also the thighs; under tail-coverts rufous, tipped with white and barred across with dusky blackish; under wing-coverts pale ashy rufous, mottled with dusky bases to the outer coverts, many of which are spotted with white; quills brown below, ashy along the edge of the inner web; "bill brown, the lower mandible yellowish; feet rufous, claws yellowish; iris brown" (*A. David*). Total length 4 inches, culmen 0·55, wing 1·9, tail 1·4, tarsus 0·75.

*Young.* Similar to the adult but darker, the head more dusky brown, and the wing-coverts and quills with broader blackish cross bars.

The Vinous-brown Wren inhabits Eastern Siberia and Mongolia, extending into Northern China and Japan. I have only seen specimens from the last-named locality.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Hakodadi, Japan, Nov. 24, 1874. | Henry Whitely [C.]. |
| *b*, *c.* Ad. sk. | Yokohama. | H. Pryer, Esq. [C.]. |
| *d.* Juv. sk. | Yokohama. | H. Pryer, Esq. [C.]. |

### 8. Anorthura nipalensis.

Troglodytes nipalensis, *Blyth, J. A. S. Beng.* xiv. p. 589 (*ex Hodgs. MS.*); *id. Cat. B. Mus. As. Soc.* p. 158; *Bp. Consp.* i. p. 222; *Gould, B. Asia*, part iv.; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 181; *Jerd. B. Ind.* i. p. 491; *id. Ibis*, 1872, p. 131; *Gray, Hand-l. B.* i. p. 188, no. 2863; *Hume & Henders. Lahore to Yark.* p. 187; *Hume, Nests & Eggs Ind. B.* p. 218; *David & Oustal. Ois. Chine*, p. 226; *Hume, Str. F.* 1879, p. 93; *Brooks, t. c.* p. 470.

Troglodytes subhemalæchanus, *Hodgs. Icon. ined. Brit. Mus., Passeres*, i. pl. 49 (no. 396); *id. in Gray's Zool. Misc.* p. 82; *Gray, Gen. B.* i. p. 158; *id. Cat. Mamm. &c. Nepal pres. Hodgs.* p. 151.

*Adult.* General colour above dark chocolate-brown, the head and hind neck uniform, the mantle obscurely and the rest of the back more distinctly barred with blackish; the rump with a few subterminal spots of white, and rather more reddish in colour than the rest of the back; scapulars and wing-coverts like the back, and dis-

tinctly barred across with blackish ; quills sepia-brown, notched with reddish brown, which imparts a chequered appearance to the wing ; primaries minutely speckled with rufous, or with white on the outer web ; upper tail-coverts rufous, transversely barred with blackish ; tail-feathers also rufous, with transverse bars of blackish, not always very regular or conterminous ; lores dull white ; eyelid and superciliary streak pale fulvous brown ; sides of face and ear-coverts dull brown, spotted with pale fulvous brown, the sides of the neck also spotted in the same manner ; cheeks, throat, and under surface of body lighter rufous-brown, with transverse bars of dusky blackish, which increase in width on the abdomen and flanks, which are likewise barred with dull white instead of rufescent brown ; under tail-coverts clear rufous, barred with blackish and having a spot of white at the tip ; under wing-coverts whity brown, barred with blackish ; quills light brown below, ashy along the edge of the inner web ; "bill brown ; legs horny brown ; iris hazel-brown" (*Jerdon*). Total length 3·5 inches, culmen 0·55, wing 1·8, tail 1·2, tarsus 0·75.

The Nepalese Wren extends throughout the Himalayas from Cashmere (where it probably only occurs in the lower hills) to Nepal and Sikhim, being found also in the hills of Moupin and Southern Chensi. Père David considers the Tsinling examples intermediate between *A. nipalensis* and *A. fumigata*.

| | | |
|---|---|---|
| *a*. Ad. sk. | Cashmere. | R. B. Sharpe, Esq. [P.]. |
| *b*, *c*, *d*. Imm. sk. | Between Mussoori and Simla. | Capt. Stackhouse Pinwill [P.]. |
| *e*, *f*, *g*. Ad. ; *h*. Juv. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *i*, *k*. Ad. sk. | Nepal. (Types of *Troglodytes subhemalachanus*, Hodgs.) | B. H. Hodgson, Esq. [P.]. |
| *l*, *m*, *n*. Ad., *o*. Juv. sk. | Nepal (*B. H. Hodgson*). | India Museum. |
| *p*, *q*. Ad. sk. | Himalayas. | Gould Collection. |
| *r*, *s*. ♂ ♀ ad. sk. | Sikhim, Jan. 1874 (*L. Mandelli*). | R. B. Sharpe, Esq. [P.]. |

### 9. Anorthura neglecta.

Troglodytes neglectus, *Brooks, J. A. S. Beng.* 1872, p. 328 ; *id. Str. F.* 1876, p. 493, 1879, p. 93 ; *Biddulph, Ibis*, 1881, p. 52 ; *Scully, t. c.* p. 437.

*Adult male.* General colour above fulvous brown, the head and neck dusky brown, the entire back from the mantle downwards distinctly barred with dusky blackish, remains of some of these bars even occurring on the hind neck ; wing-coverts like the back, and barred in the same manner, the bastard wing with paler and more whity-brown bars, the greater coverts slightly more rufescent ; quills light brown, externally rufous-brown barred with blackish, the primaries faintly chequered with whity-brown spots ; upper tail-coverts and tail dull rufous-brown, barred across with blackish, about twelve bars being distinguishable on the centre tail-feathers, though on none of them are they strictly conterminous ; face very dusky, with a slightly indicated eyebrow, and the lores faintly

spotted with whity brown; ear-coverts and cheeks dusky brown, slightly relieved by dull whity-brown centres to the feathers; throat and chest dusky brown, with indistinct dark cross lines; centre of breast and abdomen whity brown, with blackish cross bars, the sides of the body more rufous-brown, with blackish cross bars; under tail-coverts rufous, barred with black and tipped with white; under wing-coverts and axillaries like the breast, with dusky blackish cross lines, some of the longer coverts dull white barred with dusky; quills ashy brown below, lighter ashy along the edge of the inner web; "bill black, brown at the base of lower mandible; gape deep yellow; feet dark brown, the claws blackish; iris dark brown" (*Scully*). Total length 4 inches, culmen 0·5, wing 2·05, tail 1·35, tarsus 0·7.

Another bird (killed by Dr. Scully on the 3rd of December) has the bars less distinct on the mantle, and has a few white spots on the wing-coverts, the eyebrow is a little plainer, and the stripes on the cheeks more distinctly indicated; the underparts also are more distinctly barred with blackish and with white, so that the lower surface of the bird appears lighter.

The Cashmere Wren occurs only on the hills of Cashmere; it is plentiful in winter, ascending to a height of 10,000 feet during the breeding-season.

| | | |
|---|---|---|
| *a*. Juv. sk. | Sonamarg, Cashmere, 8500 feet, Oct. 13, 1879. | Major J. Biddulph [C.]. |
| *b*. ♂ imm. sk. | Astor, 8000 feet, Oct. 4, 1880. | Major J. Biddulph. |
| *c*. ♂ ad. sk. | Sai, Gilgit, 10,000 feet, Sept 11, 1880. | Major J. Biddulph. |
| *d*. Ad. sk. | Gilgit, 5000 feet, Jan. 2, 1879. | Major J. Biddulph. |
| *e*. Ad. sk. | Gilgit, 5000 feet, Feb. 20, 1879. | Major J. Biddulph. |
| *f*. ♀ ad. sk. | Gilgit, 5000 feet, March 17, 1879. | Major J. Biddulph. |
| *g*. ♂ ad. sk. | Gilgit, 10,000 feet, June 19, 1880. | Major J. Biddulph. |
| *h*. Ad. sk. | Gilgit, 5000 feet, Dec. 1877. | Major J. Biddulph. |
| *i*. Ad. sk. | Gilgit, Dec. 3, 1878. | Dr. J. Scully [P.]. |

## 10. Anorthura formosa.

Troglodytes punctatus (*nec Boie*), *Blyth, J. A. S. Beng.* xiv. p. 589; *id. Cat. B. Mus. As. Soc.* p. 158; *Bp. Consp.* i. p. 222; *Jerd. B. Ind.* i. p. 492; *Gray, Hand-l. B.* i. p. 188, no. 2565; *Hume, Str. F.* 1874, p. 525, 1877, p. 238, and 1879, p. 93.
Troglodytes formosus, *Wald. Ibis*, 1874, p. 91.

*Adult.* General colour above smoky brown, inclining to dull rufous-brown on the lower back and rump, and verging to more decided rufous on the upper tail-coverts; on all the upper parts there are tiny rounded subterminal spots of whitish or pale fulvous, margined with dusky blackish, these spots being absent only on the crown of the head; wing-coverts dusky brown, with rather larger spots of buffy whitish; the greater coverts rufous, mottled on the outer web and having a buffy-white spot at the tip; quills blackish, externally rufous, with five broad bands of black, the inner secondaries more narrowly barred and having a few terminal spots of

white; tail rufous, barred with blackish, about nine narrow bars being perceptible on the centre feathers; lores and sides of face smoky brown, mottled with fulvous spots, indistinct on the lores, but plainer on the cheeks; the ear-coverts streaked narrowly with fulvous; throat light sandy buff, deepening in colour on the breast and abdomen; the whole under surface mottled with triangular whitish spots, which are brought into relief by dusky central spots, all the feathers bordered by a thin dusky line and freckled with minute dots of dusky blackish; the flanks rather browner than the abdomen; under wing-coverts and axillaries reddish brown, slightly mottled with dusky bars; quills dusky brown below, ashy along the margin of the inner web, and showing some fulvous bars towards the ends; "bill horny brown; legs pale brown; iris brown" (*Jerdon*). Total length 4·6 inches, culmen 0·6, wing 1·75, tail 1·25, tarsus 0·7. (*Mus. R. G. Wardlaw Ramsay.*)

The Spotted Wren is only found in the neighbourhood of Darjiling, where it is very rare.

## 38. CATHERPES.

Type.

Catherpes, *Baird, N.-Amer. Birds*, p. 356 (1858).... C. mexicanus.

Bill of *Catherpes mexicanus*.

*Range.* Southern United States and Mexico.

*Key to the Species.*

*a.* Throat and chest white.
  *a'.* Above blackish brown; wings and tail sparsely sprinkled with minute white specks, which are absent on the head and neck ..... *mexicanus*, p. 280.
  *b'.* Above cinnamon-ashy, more reddish on rump and wings; head and neck above with numerous spots of white; very few of these on back and wings. (*Ridgway.*) .... *conspersus*, p. 282.
*b.* Throat and chest rufous, with a greyish tinge.. *sumichrasti*, p. 282.

### 1. Catherpes mexicanus.

Troglodytes mexicanus, *Licht. Preis-Verz. mex. Vög.* 1830, p. 2; *Gray, Gen. B.* i. p. 159; *Cab. J. f. O.* 1863, p. 57.

Troglodytes murarius, *Licht. Preis-Verz. mex. Vög.* 1830, no. 80; *Cab. J. f. O.* 1863, p. 57.

Thryothorus mexicanus, *Swains. Zool. Illustr.* 2nd ser. i. p. 11; *Bp. Consp.* i. p. 221.

Thryothorus guttulatus, *Lafr. Rev. Zool.* 1839, p. 99.
Salpinctes mexicanus, *Cab. in Wiegm. Archiv*, 1847, p. 324; *Bp. Consp.* i. p. 224; *Cab. Mus. Hein.* Th. i. p. 78; *Scl. P. Z. S.* 1855, p. 66, 1857, p. 212, and 1858, p. 297.
Catherpes mexicanus, *Scl. Cat. Amer. B.* p. 18; *id. P. Z. S.* 1864, p. 172; *Scl. & Salv. Nomencl. Av. Neotr.* p. 6; *Sumichr. Mem. Bost. Soc. Nat. Hist.* i. p. 545; *Coues, B. Color. Vall.* p. 164, note; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 72; *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 14 (1881).
Cyphorhinus mexicanus, *Gray, Hand-l. B.* i. p. 194, no. 2674.
Catherpes mexicanus, var. mexicanus, *Ridgw. Amer. Nat.* vii. 1873, p. 603; *Baird, Brewer, & Ridgw. Hist. N.-Amer. B.* i. p. 138.

*Adult male* General colour above dark chestnut-brown, obscurely barred with blackish brown and spotted with white, before which is a subterminal black spot; rump and upper tail-coverts bright chestnut, with small white dots; tail-feathers light chestnut, with transverse black bars, about nine in number; wing-coverts like the back, and with tiny white dots: the median and greater series rather lighter rufous externally, mottled with black bars and having a white dot at the end of the feathers; quills dark brown, externally rufous-brown barred with black, the innermost secondaries barred across; head more dusky brown than the back, slightly mottled with blackish spots and cross bars and scantily spotted with small dots of white; eyelid rufescent: lores blackish; above the eye a few rufous dots form a scarcely perceptible indication of an eyebrow; sides of face pure white; the ear-coverts blackish brown, slightly mixed with white; throat and fore neck pure white, tinged with chestnut on the latter; remainder of under surface rich chestnut, varied with white spots, before which is a subterminal black bar; abdomen a little dingier chestnut than the breast, the under tail-coverts brighter; under wing-coverts dull chestnut, rather broadly barred with blackish; axillaries dull rufous; quills dusky brown below, paler along the edge of the inner web. Total length 5·9 inches, culmen 1·0, wing 2·8, tail 2·5, tarsus 0·8.

Some variation in shade of colour appears to take place in a series of specimens, some being browner and others darker in general appearance. Messrs. Salvin and Godman have lent me a bird from Tehuantepec (*Sumichrast*), which is very remarkable, being blackish above, and having the under tail-coverts uniform deep chestnut, with a shaft-streak of black down the centre, instead of the bands of white and black seen in the other specimens. The black markings on the abdomen are also much larger. A further examination of examples may prove this to be a distinct species.

The Mexican White-throated Rock-Wren is confined to Mexico. The remarks on the variation in colour of this species within Mexican limits made by Messrs. Salvin and Godman (*l. c.* p. 72) should be studied.

| | | |
|---|---|---|
| *a.* Ad. sk. | Mexico. | Purchased. |
| *b.* ♂ ad. sk. | Puebla, Mexico. | M. A. Boucard [C.]. |
| *c.* Ad. sk. | Mexico. | J. Taylor, Esq. [P.]. |

### Subsp. 1 *a*. Catherpes conspersus.

Troglodytes albifrons, *Baird, in Stansbury's Rep.* p. 327 (*nec Girand*).
Troglodytes mexicanus, *Heerm. Journ. Acad. Nat. Sci. Philad.* 2nd ser. ii. p. 63; *id. Pacif. Rail. Rep.* x. p. 41; *Cassin, Ill. B. Calif.* p. 173, pl. xxx.
Catherpes mexicanus (*nec Swains.*), *Baird, B. N. Amer.* p. 356; *id. Review Amer. B.* p. 111; *Cooper, Orn. Calif.* p. 66; *Coues, Key N.-Amer. B.* p. 85; *id. B. North-West*, p. 28.
Catherpes mexicanus, var. conspersus, *Ridgw. Amer. Nat.* vii. p. 2; *Baird, Brewer, & Ridgw. N.-Amer. B.* p. 139, pl. viii. fig. 4; *Ridgw. Orn. 40th Parallel*, p. 420; *Coues, B. Col. Vall.* p. 164.
Catherpes mexicanus conspersus, *Coues, B. Col. Vall.* p. 164; *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 14 (1881).

*Adult male* (Black River, Arizona; H. W. Henshaw). Above brownish ashy on the anterior and bright cinnamon-rufous on the posterior half, the two colours shading insensibly together on the back; the anterior or greyish portion thickly sprinkled with numerous small circular dots of buffy white, each surrounded by a mall dusky mark; a few of these dots on the rump, but not so conspicuous; wing sandy rufous, both the coverts and the quills mottled with wavy bars of dusky blackish, the median and greater coverts with dull white spots like the back; the quills uniform dusky brown on the inner webs and at the tips, the inner secondaries only sandy rufous mottled with dusky cross-barring; tail pale rufous, narrowly barred across with dusky blackish; lores dull whitish: over the eye a slight eyebrow of sandy buff, as also are the feathers round the eye; cheeks white; ear-coverts whitish, the hinder margin blackish with whitish spots; throat and chest white, shaded with chestnut on the latter; the sides of the breast, flanks, and abdomen rich chestnut, varied with a few spots of dull white surrounded by blackish; axillaries chestnut, like the breast; under wing-coverts dusky, with whitish cross-markings; quills light brown below, paler along the edge of the inner web; "bill slate-colour, of a pale livid hue below; feet black; eyes brown" (*Coues*). Total length 4·75 inches, culmen 0·8, wing 2·2, tail 1·9, tarsus 1·65. (*Mus. Salvin and Godman.*)

The White-throated Rock-Wren is confined to the central region of North America, from the boundary of the United States northwards, extending up the Colorado valley to Western Nevada.

The smaller size and general browner colouring seem to be the chief characteristics of this race. The single specimen examined by me seems hardly sufficient to settle the question: but in the above respects the Arizona bird differs from Mexican examples in the British Museum and in Messrs. Salvin and Godman's collection.

### 2. Catherpes sumichrasti.

Catherpes sumichrasti, *Lawrence, Pr. Acad. Nat. Sci. Philad.* 1871, p. 233; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 74.

*Adult.* Brown, with the rump and wings darker; sides of head a little paler, the throat greyish rufous; the breast marked with

numerous dusky bands; the abdomen relieved by small white spots surrounded with black; flanks indistinctly banded; vent blackish brown; upper mandible blackish, the lower mandible whitish at the base; feet blackish. Total length (without tail) 5 inches, bill from gape 1·2, wing 2·75, tarsus 1·2. (*Mus. Smithson.*)

Sumichrast's White-throated Rock-Wren is only known from a single specimen obtained at Mata Bejuco, in Vera Cruz, Mexico.

The above description is translated from the diagnosis of the (at present unique) type specimen given by Messrs. Salvin and Godman, who have also lent me a coloured figure of the bird.

## 39. SPHENOCICHLA.

Type.

Heterorhynchus, *Mandelli, Str. F.* i. p. 415 (1873) (*nec Lafr.*) ..... S. humii.
Sphenocichla, *Walden, Ibis*, 1875, p. 250 ..... S. humii.
Stachyrirhynchus, *Hume, Str. F.* 1876, p. 217 ..... S. humii.

Head of *Sphenocichla humii*.

### 1. Sphenocichla humii.

Heterorhynchus humii, *Mandelli, Str. F.* 1873, p. 415.
Sphenocichla roberti, *Godw.-Aust. & Wald. Ibis*, 1875, p. 250; *Hume, Str. F.* 1876, p. 217; *id. Str. F.* 1879, p. 95.
Stachyrirhynchus roberti, *Hume, Str. F.* 1876, p. 217, note; *id. Str. F.* 1879, p. 95.

*Adult* (Native Sikhim, April 1875; Mandelli). General colour above scaly, the feathers being brown in the centre, edged with black, the feathers of the head and mantle with buffy-white shaft-lines, less distinct on the lower back and rump, the dorsal feathers indistinctly waved with narrow blackish cross bars; upper tail-coverts reddish brown, narrowly barred with indistinct blackish cross lines; wing-coverts like the back, edged and obscurely barred in the same manner; some of the greater coverts more ochraceous brown towards the tips; quills blackish brown, obsoletely barred with lighter brown and black externally, the bars a little more distinct towards the end of the secondaries; upper tail-coverts and tail rather more reddish brown, numerously barred with blackish brown, the bars about 21 in number; forehead blacker than the head, with very distinct white shaft-streaks, the lores and sides of the crown similarly coloured; an eyebrow of light ashy feathers tipped with white, drawn from above the eye to the sides of the

neck, which is also mottled with the same ashy-spotted feathers; ear-coverts and cheeks blackish, narrowly streaked with white shaft-lines, as also the fore part of the cheeks; under surface of body blackish brown, the feathers of the throat and breast obsoletely margined with dull ashy, producing a scaly appearance; chin with distinct white shaft-lines; centre of breast ashy, the lateral feathers blackish, tipped with ashy; flank-feathers and vent blackish, tipped with fulvous brown; under tail-coverts entirely fulvous brown; under wing-coverts light fulvous brown, edged with blackish, the outer ones more ashy; quills brown below, ashy fulvous along the edge of the inner web. Total length 6·3 inches, culmen 1, wing 2·7, tail 2·6, tarsus 1·05. (*Mus. Col. Godwin-Austen.*)

*Adult female* (Konchungbúm, Muniper Hills; H. Robert: type of *Sphenocichla roberti*). Differs from the male in being of a reddish brown above, the feathers edged with black and subterminally spotted with ashy, producing a scaly appearance; the ashy spots absent on the head, and more rufescent on the lower back and rump; the upper tail-coverts numerously barred with dusky; wing-coverts like the back and spotted with ashy in the same manner, the greater coverts with numerous dusky cross bars; quills dark brown, the secondaries rufous-brown externally, the innermost lighter brown and barred across with dusky; primaries externally barred with fulvous brown and more narrowly with blackish; tail-feathers dull brown, with numerous bars of dusky blackish, about 22 bars being perceptible on the central feathers; forehead a little clearer than the crown, the lores dusky; upper edge of eyelid white; ear-coverts blackish, with nearly obsolete whitish shaft-lines; cheeks ashy whitish, the feathers with dark-brown centres and blackish margins, producing a scaly appearance; throat and chest scaly, the feathers being olive-brown in the centre, blackish on the margin, with a subterminal line of white; the feathers in the centre of the breast ashy, with less pronounced blackish edges; sides of body reddish brown, slightly washed with olive, and mottled by the presence of a few feathers which are edged with blackish and subterminally marked with dull white; under tail-coverts rufous-brown, subterminally marked with a line of dull white; under wing-coverts brown, those near the edge of the wing ashy; quills dusky brown below, pale ashy rufous along the edge of the inner web. Total length 6·5 inches, culmen 1·15, wing 2·95, tail 2·7, tarsus 1·1. (*Mus. H. H. Godwin-Austen.*)

Hume's Wedge-billed Wren was originally discovered in Native Sikhim by Mr. Mandelli, and has since been found in the North Cachar and Munipur hills by Colonel Godwin-Austen.

## 40. UROPSILA.

Type.

Uropsila, *Scl. & Salv. Nomencl. Av. Neotr.* p. 155 (1873) ..... U. leucogastra.

*Range.* Confined to Mexico.

Head of *Uropsila leucogastra.*

Leg of *Uropsila leucogastra.*

### 1. Uropsila leucogastra. (Plate XVII.)

Troglodytes leucogastra, *Gould, P. Z. S.* 1836, p. 89.
Cyphorhinus pusillus, *Sclater, P. Z. S.* 1859, p. 372; *id. Cat. Amer. B.* p. 20; *Gray, Hand-l. B.* i. p. 193, no. 2670.
Heterorhina pusilla, *Baird, Review Amer. B.* i. p. 119.
Uropsila leucogastra, *Scl. & Salv. Nomencl. Av. Neotr.* pp. 7, 155; *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 78.

*Adult female.* General colour above umber-brown, the sides of the neck ashy grey; wing-coverts uniform umber-brown, like the back; quills brown, externally like the back, the primaries with faint indications of darker brown notches, the inner secondaries barred with dark brown; tail dark umber-brown, narrowly barred across with blackish brown; lores and a very distinct eyebrow white; sides of face greyish white, the ear-coverts washed with reddish brown, with a dark streak of brown along the upper margin; under surface of body greyish white, purer white on the abdomen, the sides of the breast ashy; the flanks and sides of the body, thighs, and under tail-coverts isabelline brown; under wing-coverts and axillaries dull whitish; quills dusky brown below, buffy white along the edge of the inner web. Total length 3·6 inches, culmen 0·6, wing 1·9, tail 1·1, tarsus 0·75.

The White-bellied Wren has only been found in the neighbourhood of Oaxaca and Tamaulipas, in Mexico.

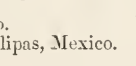
| | | |
|---|---|---|
| *a.* Ad. sk. | Mexico. | Purchased. |
| *b.* Ad. sk. | Tamaulipas, Mexico. | Zoological Society. (Type of species.) |

## 41. HENICORHINA.

Type.

Heterorhina, *Baird, Review Amer. B.* i. p. 115 (1864, *nec Westwood*, 1846) ..... C. leucosticta.
Henicorhina, *Scl. & Salv. P. Z. S.* 1868, p. 170.

*Cf. Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 78.



Bill of *Henicorhina leucosticta.*

*Range.* Central America from Mexico southwards to South America as far as Guiana, Amazonia, Peru, and Bolivia.

*Key to the Species.*

*a.* Throat and breast pure white; bastard-wing spotted with white.
  *a'.* Head brown, the sides of the crown black.. *prostheleuca*, p. 286.
  *b'.* Head black all over ..... *leucosticta*, p. 287.
*b.* Throat whitish; fore neck and breast ashy grey; no white spots on bastard wing.... *leucophrys*, p. 288.

### 1. Henicorhina prostheleuca.

Scytalopus prostheleucus, *Sclater*, *P. Z. S.* 1856, p. 290.
Cyphorhinus prostheleucus, *Sclater*, *P. Z. S.* 1858, pp. 64, 96, 1859, pp. 363, 372; *Scl. & Salv. Ibis*, 1860, p. 397; *Scl. Cat. Amer. B.* p. 20; *Gray, Hand-l. B.* i. p. 193, no. 2668.
Heterorhina prostheleuca, *Baird, Review Amer. B.* p. 116.
Cyphorhinus leucostictus, *Lawr. Ann. Lyc. N. Y.* vii. p. 320, ix. p. 92.
Microcerculus leucostictus, *Scl. & Salv. P. Z. S.* 1864, p. 345.
Thryothorus leucostictus, *Salv. P. Z. S.* 1867, p. 134.
Henicorhina leucosticta, *Salv. P. Z. S.* 1870, p. 181; *Scl. & Salv. Nomencl. Av. Neotr.* p. 6 (pt.); *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 79.
Heterorhina leucosticta (pt.), *Sumichr. Mem. B. Soc. N. H.* i. p. 545.

*Adult.* General colour above light chestnut-brown, rather clearer on the rump and upper tail-coverts; wing-coverts like the back, the lesser series dark grey; the bastard wing and some of the outer greater coverts edged and spotted with white near their tips; primary-coverts dusky brown, with narrow rufous-brown edgings; quills dusky brown, the primaries notched with fulvescent brown, the secondaries externally rufous-brown, barred with blackish; tail-feathers rufous-brown, rather broadly barred with black; head and nape light brown in the centre, slightly olivaceous, the sides of the crown black, forming a broad streak on each side of the paler crown; lores and a broad streak above the ear-coverts black, surmounted by a white eyebrow, which extends from the base of the bill to the sides of the nape; sides of face and ear-coverts black, streaked with white; sides of neck black, with ovate spots of white, giving a streaked appearance; cheeks white, separated from the throat by a narrow black moustache; throat, breast, and centre of abdomen white; the sides of the breast ashy grey; flanks, thighs, and under tail-coverts rufous-brown, the thighs washed with ashy; under wing-coverts and axillaries dull white, slightly mottled with dusky bases to the feathers; quills dusky brown below, ashy along the edge of the inner web. Total length 4 inches, culmen 0·7, wing 2·2, tail 1·2, tarsus 0·85.

The White-breasted Wren is found in the lowland hot forests of Central America, from Southern Mexico through Guatemala and Costa Rica, and Veragua and Panama.

| | | |
|---|---|---|
| *a.* Ad. sk. | Cordova, Mexico. | M. A. Sallé [C.]. |
| *b.* Ad. sk. | Guatemala. | Purchased. |

| | | |
|---|---|---|
| *c.* Ad. sk. | Choctum, Vera Paz, Guatemala. | O. Salvin, Esq. [P.]. |
| *d.* Ad. sk. | Vera Paz. | O. Salvin, Esq. [C.]. |
| *e.* Ad. sk. | Guatemala. | M. A. Boucard [C.]. |
| *f.* Ad. sk. | San Carlos, Costa Rica, Feb. 1877. | M. A. Boucard [C.]. |
| *g.* Ad. sk. | Santa Fé de Veragua. | M. E. Areé [C.]. |

## 2. Henicorhina leucosticta.

Troglodytes leucostictus, *Licht. in Mus. Berol.*, undè
Cyphorhinus leucostictus, *Cab. Arch. f. Naturg.* xiii. pt. i. 1847, p. 203; *Bp. Consp.* i. p. 224; *Sclater, P. Z. S.* 1858, p. 63; *Gray, Hand-l. B.* i. p. 193, no. 2671.
Heterorhina leucosticta (pt.), *Baird, Review Amer. B.* p. 117.

*Adult male.* General colour above chestnut-brown, the wing-coverts like the back, the least series washed with ashy grey; bastard wing spotted with white at the tip of the outer web; primary-coverts blackish, margined with reddish brown; quills blackish, externally notched with reddish brown, the secondaries externally like the back and barred with blackish; tail-feathers rufous-brown, narrowly barred with blackish; crown of head and nape jet-black, as also the sides of the neck, the latter being streaked with white; a distinct white eyebrow from the base of the bill to the sides of the neck; lores black; ear-coverts black streaked with white, the upper margin black, forming a broad line; cheeks white, slightly mottled with narrow blackish edgings, and separated from the throat by a narrow black moustachial streak; throat and breast pure white, as also the abdomen; sides of breast ashy grey, the flanks and sides of the body rufous-brown, the under tail-coverts also of this colour, the thighs a little paler; under wing-coverts and axillaries dingy white, slightly mottled with blackish bases to the feathers; quills dusky brown below, ashy along the edge of the inner web. Total length 3·6 inches, culmen 0·7, wing 2·15, tail 1·05, tarsus 0·9.

*Adult female.* Similar to the male in plumage. Total length 3·5 inches, culmen 0·65, wing 2, tail 1·05, tarsus 0·85. (*Mus. Salvin and Godman.*)

*Obs.* Professor Baird, in his 'Review,' separated *H. leucosticta* from *H. prostheleuca*, but on characters which do not hold good, as already pointed out by Mr. Salvin. The pureness of the white on the under surface or the size of the white spots on the sides of the head are not characters of any great import: but the black head of the South-American bird seems to me to distinguish it at a glance. Messrs. Salvin and Godman have specimens from Sarayacu, Ecuador (*Buckley*), and from Chira, Eastern Peru (*Hauxwell*), which are identical with Demerara skins collected by Mr. Henry Whitely, excepting that one of the latter has a few white spots on the crown. Cabanis's description is so evidently taken from the Guiana bird, that his name must be applied to the black-headed form.

The Guiana White-breasted Wren replaces the foregoing species

in Guiana, Venezuela, Colombia, and Ecuador, ranging into Eastern Peru. Cabanis described his species from Guiana and Mexico; but his description shows that he took the black-headed species for his type.

| | | |
|---|---|---|
| *a, b.* ♂ ♀ ad. sk. | Bartica Grove, Demerara, January 1880. | Henry Whitely [C.]. |
| *c.* Ad. sk. | Ecuador. | Clarence Buckley [C.]. |

### 3. Henicorhina leucophrys.

Troglodytes leucophrys, *Tschudi, Arch. f. Naturg.* x. pt. i. p. 283; *id. Faun. Peruan.* p. 185.
Troglodytes guttatus, *Hartl. Syst. Verz. d. Ges. Mus. Brem.* p. 28.
Cyphorhinus leucophrys, *Cab. Arch. f. Naturg.* 1847, pt. i. p. 206; *Bp. Consp.* i. p. 20; *Lawr. Ann. Lyc. N. Y.* ix. p. 92; *Scl. Cat. Am. B.* p. 19; *Gray, Hand-l. B.* i. p. 194, no. 2672.
Cyphorhinus prostheleucus, *Scl. & Salv. Ibis*, 1860, p. 272 (*nec Sclater*).
Cyphorhinus griseicollis, *Scl. & Salv. Ibis*, 1860, p. 397 (*nec. Lafr.*); *Gray, Hand-l. B.* i. p. 193, no. 2669.
Heterorhina griseicollis, *Baird, Rev. Amer. B.* p. 117 (*nec. Lafr.*).
Heterorhina leucophrys, *Baird, t. c.* p. 118.
Henicorhina leucophrys, *Salv. P. Z. S.* 1870, p. 181; *Scl. & Salv. Nomencl. Av. Neotr.* p. 6; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 80.

*Adult male.* General colour above chestnut-brown, the head more dingy than the back, the sides of the crown being blackish; wing-coverts dusky, externally like the back; bastard-wing feathers edged with paler or more fulvous brown; quills blackish brown, with the outer webs of the same colour as the back, chequered externally with blackish notches on the primaries, which become bars on the secondaries; tail-feathers reddish brown, mottled with irregular blackish bars and markings: a very distinct white eyebrow, running from the base of the bill to the sides of the nape; lores and a broad streak along the upper edge of the ear-coverts black; sides of neck black, mottled with oval spots of white; sides of face white streaked with black, with which the feathers are edged; throat dull white, with a few indistinct edgings of black to the feathers; the lower throat, fore neck, and breast ashy grey, the centre of the abdomen inclining to ashy whitish; sides of the body, flanks, and under tail-coverts rufous-brown; under wing-coverts light ashy, the edge of the wing mottled with spots of white; the axillaries ashy, somewhat washed with brown; quills dusky below, inclining to ashy along the inner web. Total length 4·5 inches, culmen 0·7, wing 2·3, tail 1·5, tarsus 0·95.

*Adult female* (Frontino, T. K. Salmon). Similar to the male described, but a little more rufous on the upper parts and the abdomen; wings and tail rather more distinctly barred with blackish. Total length 4·5 inches, culmen 0·65, wing 2·2, tail 1·45, tarsus 0·9. (*Mus. Salvin and Godman.*)

*Young*. Dingy brown, with indications of blackish bars on the back; the head uniform blackish, with the white eyebrow indistinctly indicated; quills very broadly barred with blackish; below dingy ashy, whiter on the chin, the flanks and lower abdomen fulvous brown; on the bastard wing a few white spots.

The description of the adult male is from one of Mr. Salmon's Colombian skins in the Museum. The young bird is quite a nestling, collected at Jalapa by De Oca, from whose skins the Museum also selected an adult. The blackish head, therefore, seen in many specimens (on which account Prof. Baird would have recognized two species), seems to be a sign of more or less immaturity. Mexican birds are smaller than those from more southern localities and have distinctly shorter bills; their colour is also paler, the crown exactly resembling the back in colour. They may be found ultimately to constitute a distinct race; but at present there seems to be a regular gradation in size between Mexican and South-American specimens, the Colombian birds being larger than the majority of Central-American and having the longest bills. The Central-American specimens have the throat more distinctly streaked, by means of the blackish edgings to the feathers, than either the Mexican or South-American birds. I have examined twenty-four examples in the Museum collection and that of Messrs. Salvin and Godman, whose remarks on the species in the 'Biologia' (*l. c.*) should be consulted.

The Grey-chested Wren is distributed over the whole of Central America from Southern Mexico through Guatemala to Costa Rica and Panama, and thence through Colombia and Venezuela, southwards through Ecuador to Peru and Bolivia. It is always a more upland species than the other members of the genus, and was found by Mr. Salvin in Guatemala as high as 10,000 feet, descending, however, to 4000 feet.

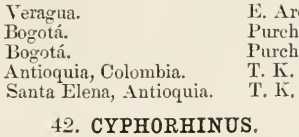
| | | |
|---|---|---|
| *a*. Ad.; *b*. Juv. sk. | Jalapa, Mexico. | R. de Oca [P.]. |
| *c*. Ad. sk. | Mexico. | M. A. Sallé [C.]. |
| *d*, *e*. Imm. sk. | Guatemala. | M. A. Boucard [C.]. |
| *f*. Ad. sk. | Veragua. | E. Arcé [C.]. |
| *g*. Ad. sk. | Bogotá. | Purchased. |
| *h*. Ad.; *i*. Juv. st. | Bogotá. | Purchased. |
| *k*. Ad. sk. | Antioquia, Colombia. | T. K. Salmon, Esq. [C.]. |
| *l*, *m*. Ad. sk. | Santa Elena, Antioquia. | T. K. Salmon, Esq. [C.]. |

## 42. CYPHORHINUS.

Type.

Cyphorhinus, *Cabanis, Archiv für Naturg.* 1844, p. 282...C. thoracicus.

Cf. *Baird, Review Amer. Birds*, p. 112; *Salvin & Godman, Biol. Centr.-Amer., Aves*, i. p. 75.



Head of *Cyphorhinus modulator*.

*Range.* From Costa Rica and Panama to Guiana, and through Ecuador and the Upper Amazons to Peru and Bolivia.

*Key to the Species.*

*a.* Wings and tail barred.
  *a'.* Sides of neck mottled with black and white, the feathers being black with broad white centres of a triangular shape ..... *musicus*, p. 290.
  *b'.* No black and white mottling on the sides of the neck.
    *a''.* No black on the chin or sides of the throat or fore part of cheeks; forehead bright chestnut.
      *a'''.* Light umber-brown above; forehead and crown bright chestnut; ear-coverts bright chestnut, dark brown along the upper margin ..... *modulator*, p. 291.
      *b'''.* Dark umber-brown above, the forehead only bright chestnut; ear-coverts entirely dark brown ..... *salvini*, p. 292.
    *b''.* Chin, sides of upper throat, and fore part of cheeks blackish.
      *c'''.* Breast and abdomen ochraceous brown, washed with rufous.
        $a^4$. Dark chestnut-brown, the crown blackish; primary-coverts uniform; throat and breast rich chestnut .... *phæocephalus*, p. 292.
        $b^4$. Brown above, somewhat inclining to olive-brown; primary-coverts barred; throat and breast orange-chestnut.. *brunneiceps*, p. 293.
      *d'''.* Centre of abdomen and breast light ashy brown..... *lawrencii*, p. 293. / *thoracicus*, p. 294.
*b.* Wings and tail not barred..... *dichrous*, p. 294.

### 1. Cyphorhinus musicus.

Musicien de Cayenne, *Daub. Pl. Enl.* v. pl. 709. fig. 2.
L'Arada, *Buff. Hist. Nat. Ois.* iv. p. 480.
Musician Thrush, *Lath. Gen. Syn.* ii. pt. i. p. 80.
Formicarius musicus, *Bodd. Tabl. Pl. Enl.* p. 44 (*ex Buff.*).
Turdus cantans, *Gm. Syst. Nat.* i. p. 825.
Turdus arada, *Lath. Ind. Orn.* i. p. 358.
Thryothorus carinatus, *Swains. Birds of Brazil*, pl. 14.
Platyurus rubecula, *Swains. Classif. B.* ii. p. 319.
Cyphorhinus cantans, *Cab. Arch. f. Naturg.* 1847, p. 207; *id. Schomb. Reis. Guian.* iii. p. 673; *id. Mus. Hein.* Th. i. p. 79; *Bp. Consp.* i. p. 224.
Cyphorhinus carinatus, *Cab. in Tschudi, Faun. Peruan., Vög.* p. 184, note; *Gray, Gen. B.* i. p. 156.
Cyphorhinus musicus, *Gray, Gen. B.* i. p. 156; *Sclater, Cat. Amer. B.* i. p. 19; *Scl. & Salv. Ex. Orn.* text to pl. xxii.; *Gray, Hand-l. B.* i. p. 193, no. 2659; *Pelz. Ibis*, 1873, p. 111; *Scl. & Salv. Nomenel. Av. Neotr.* p. 6; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 75.

*Adult male.* General colour above brown, slightly washed with rufous-ochre; lesser and median wing-coverts like the back;

greater coverts externally edged with rufous-brown and spotted with blackish-brown dots on the outer webs, with a few bars of the same colour; quills brown, rufous-brown on the outer webs, varied with bars of blackish brown, more distinct on the secondaries, the innermost of which have blackish-brown bars on both webs; tail-feathers dark umber-brown, banded across with faintly indicated bars of blackish brown, about seven bars being traceable on the centre feathers; head chestnut, brighter on the forehead, and shading off more into brown on the hind neck; ear-coverts and sides of face bright chestnut, the upper margin of the ear-coverts blackish, sides of neck conspicuously mottled with black and white, a broad streak running from above the hinder ear-coverts down the sides of the neck, the feathers being white in the centre with black margins; sides of neck also mottled, the feathers being black with broad triangular centres of white; throat and chest bright chestnut; remainder of under surface light ashy brown; the sides of the body earthy brown, washed with rufous-brown; thighs rufous-brown; under tail-coverts barred with yellowish or reddish white and dark brown; under wing-coverts ashy brown washed with rufous-brown, the edge of the wing fulvescent; quills brown below, edged with whity brown along the edge of the inner web. Total length 4·2 inches, culmen 0·8, wing 2·5, tail 1·4, tarsus 0·9. (*Mus. Salvin and Godman.*)

The Spotted-necked Wren is apparently confined to Guaina.

| | | |
|---|---|---|
| *a*. Ad. st. | British Guiana. | Sir R. Schomburgk. |
| *b*. Ad. sk. | British Guiana. | Purchased. |
| *c*. Juv. sk. | Albina, Surinam. | C. Bartlett [C.]. |

### 2. **Cyphorhinus modulator.** (Plate XVIII. fig. 2.)

Troglodytes arada, *Lafr. et D'Orb. Syn. Av.* i. p. 25.
Thryothorus modulator, *D'Orbigny, Voy. Amér. mérid., Ois.* p. 230.
Sarochalinus rufogularis, *Des Murs in Castelu. Voy.* p. 49, pl. xvii. fig. 2.
Cyphorhinus modulator, *Sclater, P. Z. S.* 1858, p. 63; *id. Cat. Amer. B.* p. 19; *Scl. & Salv. Ex. Orn.* p. 43; *iid. Nomencl. Av. Neotr.* p. 693; *iid. P. Z. S.* 1879, p. 592; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 75.
Cyphorhinus phæocephalus, *Gray, Hand-l. B.* i. p. 193, no. 2661 (*nec Sclater*).

*Adult male* (Chamicuros, December 29, 1867; E. Bartlett). General colour above umber-brown; lores and forehead chestnut, the feathers faintly edged with brown and shading off into the brown colour of the hinder crown and neck; ear-coverts chestnut, the upper margin dark brown; above the ear-coverts a streak of chestnut feathers running down the sides of the nape; cheeks and throat chestnut; remainder of under surface ruddy brown, slightly more rufescent down the centre of the body and on the under tail-coverts; under wing-coverts light rufous-brown; quills brown below, with a narrow whity-brown edging along the inner web; lesser wing-coverts like the back; the greater series with faint rufescent

margins barred across with narrow lines of dusky brown: primary-coverts brown, with a few indications of darker brown bars; quills dark brown, barred on the outer web with fulvous brown and blackish brown, the bars on the quills broader than on the wing-coverts, the inner secondaries barred right across both webs; upper tail-coverts a little more rufescent than the back; tail-feathers brown, barred across with blackish brown, about seven bars visible on the centre tail-feathers. Total length 5·1 inches, culmen 0·8, wing 2·65, tail 1·45, tarsus 0·95.

The Rufous-breasted Wren is found in Upper Amazonia, extending into Bolivia.

*a*. ♂ ad. sk. Chamicuros, Eastern Peru, December 29, 1867. E. Bartlett, Esq. [C.].

### 3. **Cyphorhinus salvini.** (Plate XVIII. fig. 1.)

Cyphorhinus modulator, *Gray, Hand-l. B.* i. p. 193, no. 2658 (*nec D'Orb.*).

*Adult*. General colour above dark umber-brown, from the nape to the upper tail-coverts, the latter being faintly washed with rufous-brown; least and median wing-coverts like the back, but slightly washed with ochraceous brown; greater coverts dark brown, with faintly indicated bars of reddish brown on the outer web; quills dark brown, barred with reddish brown on the outer web of all except the first and second primaries; tail-feathers dark brown, with faint indications of rufous-brown cross bars under certain lights; crown of head chestnut, the hinder feathers tipped with brown where they adjoin the nape; lores chestnut with yellowish bases; ear-coverts dark brown, with faintly indicated rufous-brown shaft-lines; above the ear-coverts a streak of rufous-buff running down the sides of the hind neck; cheeks and throat chestnut; rest of under surface of body umber-brown, paler in the centre and washed with rufous on the thighs and under tail-coverts; under wing-coverts pale rufous-brown; quills dark brown below, narrowly edged with rufous-brown along the edge of the inner web. Total length 5·5 inches, culmen 0·75, wing 2·65, tail 1·45, tarsus 1.

Salvin's Wren replaces *C. modulator* in Ecuador.

*a*. Ad. sk. Rio Napo. Purchased. (Type of species.)

### 4. **Cyphorhinus phæocephalus.**

Cyphorhinus phæocephalus, *Sclater, P. Z. S.* 1860, p. 291; *id. Cat. Amer. B.* p. 19; *Scl. & Salv. Ex. Orn.* pl. xxii.; *id. Nomencl. Av. Neotr.* p. 6; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 75.

*Adult male* (Esmeraldas, Ecuador, September 1859, L. Fraser: type of species). General colour above dark rufous-brown, with concealed dusky bars on the back and scapulars, the rump more decidedly chestnut-brown; crown blackish, shading off on the nape into the brown of the back; wing-coverts like the back, the greater coverts barred with blackish brown; primary-coverts uniform dusky

brown; quills dark brown, externally rufous-brown banded with black; upper tail-coverts chestnut-brown, faintly barred with blackish; tail-feathers dark brown, barred with rufous-brown; lores, feathers below the eye, base of lower mandible, and a narrow edging to the chin black; throat and breast, as well as the remainder of the cheeks, ear-coverts, sides of hinder crown, and sides of neck, deep rich chestnut; centre of the body pale brown, the sides ruddy brown as also the thighs; under tail-coverts reddish brown, with faintly indicated dusky bars; under wing-coverts light chestnut; quills dusky brown below, pale reddish buff along the inner web. Total length 4·8 inches, culmen 0·85, wing 2·5, tail 1·4, tarsus 0·95. (*Mus. P. L. Sclater.*)

*Adult female.* Similar to the male and of the same dark colour, but the black of the head not extending quite so far towards the nape. Total length 4·8 inches, culmen 0·75, wing 2·4, tail 1·25, tarsus 0·95. (*Mus. P. L. Sclater.*)

The Dusky-headed Wren is apparently confined to Ecuador.

### 5. Cyphorhinus brunnescens.

Cyphorhinus phæocephalus, *Scl. & Salv. P. Z. S.* 1879, p. 496 (*nec Sclater*).

*Adult male.* General colour above brown, rather more rufescent on the lower back and rump and upper tail-coverts; head rather more dusky brown than the back, the forehead with somewhat lighter shaft-streaks; scapulars like the back, but with dusky bars of blackish, exactly like the lesser wing-coverts; greater coverts and quills more dark brown, externally rufous-brown, barred with blackish brown, the inner secondaries regularly barred across; tail-feathers rufous-brown, barred across with blackish brown more or less irregularly; lores, feathers round the eye, fore part of cheeks, chin, and sides of upper throat, as well as the feathers below the eye, blackish; ear-coverts, sides of crown, sides of neck, hinder part of cheeks, throat, and breast chestnut-red; the rest of the under surface ochraceous brown washed with rufous, the sides of the body browner, the under tail-coverts barred with blackish brown; under wing-coverts light chestnut, the outer coverts ashy brown washed with chestnut; quills dusky brown below, whity brown along the edge of the inner web; "iris dark" (*T. K. Salmon*). Total length 4·8 inches, culmen 0·85, wing 2·45, tail 1·2, tarsus 0·95. (*Mus. Salvin and Godman.*)

Salmon's Wren replaces the foregoing species in the Cauca valley.

### 6. Cyphorhinus lawrencii.

Cyphorhinus cantans, *Lawr. Ann. Lyc. N. Y.* vii. p. 293 (*nec Gm.*).
Cyphorhinus lawrencii, *Sclater, Ann. Lyc. New York*, viii. p. 5; *Lawr. op. cit.* p. 5, ix. p. 92; *Baird, Review Amer. B.* p. 113; *Scl. & Salv. P. Z. S.* 1864, p. 345; *iid. Exotic Orn.* p. 41, pl. xxi.; *Gray, Hand-l. B.* i. p. 193, no 2660; *Scl. & Salv. Nomencl. Av. Neotr.* p. 6; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 75.

*Adult male.* General colour above umber-brown, the lower back, rump, and upper tail-coverts more rufescent; lower wing-coverts like the back; the greater and primary-coverts and quills rufescent brown externally, barred with black, more broadly on the quills than the coverts, the innermost secondaries barred across both webs; quills dark brown on the inner webs; tail-feathers dark rufous-brown, barred with blackish, about nine bars being perceptible on the centre ones: head of the same colour as the back, the lores slightly washed with chestnut; feathers below the eye, the fore part of the cheeks, summit of chin, and sides of the latter blackish brown; sides of the hinder crown, ear-coverts, remainder of cheeks, throat, and chest bright chestnut; breast and centre of the body ashy brown, verging into rufous-brown on the sides of the body, thighs, and under tail-coverts, the latter being tipped with fulvous, producing a slightly barred appearance: under wing-coverts light chestnut; quills dusky brown below, rufescent along the margin of the inner web. Total length 4·5 inches, culmen 0·85, wing 2·5, tail 1·35, tarsus 1.

Lawrence's Wren is only known from Panama and Costa Rica.

| | | |
|---|---|---|
| *a*. ♂ ad. sk. | Panama. | Osbert Salvin, Esq. |
| *b*. Juv. sk. | Chepo, Isthmus of Panama. | Osbert Salvin, Esq. |

### 7. Cyphorhinus thoracicus.

Cyphorhinus thoracicus, *Tschudi, Arch. f. Naturg.* 1844, p. 282; *Sclater & Salvin, Nomencl. Av. Neotr.* p. 6; *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 75; *Tacz. P. Z. S.* 1874, p. 505.

This species is unknown to me. It was for long confounded with *C. modulator*, but is said to have a much longer tail.

Above dusky brown washed with pale ferruginous, the forehead brighter, the face blackish; upper wing-coverts and quills black, edged with ferruginous; under surface dusky, the throat, ear-coverts, and breast intense ferruginous; bill blackish, feet pale dusky brown, the claws horn-colour; iris dusky. Total length 5″ 7‴. (*Tschudi.*)

Tschudi's Wren is only known from Eastern Peru.

### 8. Cyphorhinus dichrous.

Cyphorhinus dichrous, *Sel. & Salv. P. Z. S.* 1879, p. 492, pl. xli.; *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 75.

*Adult* (Remedios, T. K. Salmon: type of species). General colour above very dark brown, the head and nape blackish and contrasting slightly with the back: lower back and rump blackish; upper tail-coverts dark reddish brown; upper wing-coverts like the back, some of them washed externally with reddish brown; quills uniform blackish brown, the primaries faintly edged with reddish brown; tail-feathers uniform blackish brown: lores blackish, as well as the feathers below the eye and a line along each side of the chin and the base of the lower mandible; remainder of cheeks and ear-

coverts, sides of neck, and the sides of the hinder crown running down the hinder neck, so as almost to form a half-collar, deep chestnut; throat and breast deep rich chestnut, shading off into chestnut-brown on the abdomen; the sides of the body, flanks, and thighs dark umber-brown, with a slight reddish tinge; under tail-coverts blackish, barred with dull rufous; under wing-coverts dusky, washed with chestnut, the axillaries chestnut; under wing-coverts dusky brown, narrowly edged with pale rufous along the edge of the inner web; "iris dark" (*T. K. S.*). Total length 4·9 inches, culmen 0·85, wing 2·6, tail 1·7, tarsus 1·1. (*Mus. P. L. Sclater.*)

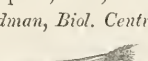
The Rufous-chested Wren has only been found as yet in the Cauca valley.

## 43 MICROCERCULUS *.

Type.

Microcerculus, *Baird, Review Amer. B.* p. 113 (1864, *ex Sclater, Cat. Amer. B.* p. 19, 1862) ..... M. bambla.

Cf. *Salvin & Godman, Biol. Centr.-Amer., Aves*, i. p. 76.



Bill of *Microcerculus bambla*, to show nostril.

*Range.* Central America, from Guatemala southwards to Guiana, Colombia, and Peru.

*Key to the Species.*

*a*. With a broad white band across the wing, the greater wing-coverts being subterminally banded with white.
  *a'*. Throat and chest ashy grey, mottled with dusky cross-markings ..... *bambla*, p. 296.
  *b'*. Throat pure white; chest ashy grey, with dusky cross-markings ..... *albigularis*, p. 296.
*b*. No white band across the wing and chest.
  *c'*. Throat ashy grey, with dusky cross-markings . *philomela*, p. 297.
  *d'*. Throat white; chest ashy ..... *luscinia*, p. 298.
  *e'*. Throat and breast pure white ..... *bicolor*, p. 298.
  *f'*. Throat and breast pure white, banded across.
    *a''*. Cross-barring on throat and breast very narrow, the feathers white with dusky tips ..... *marginatus*, p. 299.
    *b''*. Throat white, with narrow dusky edgings to the feathers; breast and abdomen blackish barred with white ..... *tæniatus*, p. 300
    *c''*. Throat uniform white; breast white, with narrow dusky-brown cross markings .... *squamulatus*, p. 300.

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* MICROCERCULUS CINCTUS.

Cyphorhinus (Microcerculus) cinctus, *Pelz. Orn. Bras.* p. 65 (1871).
Cyphorhinus cinctus, *Gray, Hand-l. B.* i. p. 193, no. 2667 (1869).

*Hab.* Brazil (Borba, S. Joaquim).

The above species is unknown to me. It appears to belong to the section of *M. bambla*.

### 1. Microcerculus bambla.

Le Bambla de Cayenne, *Daubent. Pl. Enl.* v. pl. 703. fig. 2.
Formicarius bambla, *Bodd. Tabl. Pl. Enl.* p. 44 (*ex Daubent.*).
Myrmothera troglodytes, *Less. Descr. Mamm. et Ois.* p. 301.
Heterocnemis bambla, *Sclater, P. Z. S.* 1858, p. 68.
Cyphorhinus bambla, *Sclater, Cat. Amer. B.* p. 19; *Gray, Hand-l. B.* i. p. 193, no. 2662.
Microcerculus bambla, *Baird, Review Amer. B.* p. 114; *Sclater, & Salv. Nomencl. Av. Neotr.* p. 6; *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 76.

*Adult male.* General colour above umber-brown, mottled with blackish-brown edgings to the feathers, producing a somewhat scaly appearance, the mantle and rump more uniform; lesser and median wing-coverts like the back; greater series black with a subterminal bar of white, forming a conspicuous band right across the wing; quills black, the primaries a little browner; upper tail-coverts like the back; tail-feathers blackish; lores, sides of face, and ear-coverts dull ashy; throat ashy whitish, the fore neck ashy grey, as also the feathers of the chest and centre of the breast, which are slightly scaly in appearance, being edged with brown; sides of body, flanks, and under tail-coverts rufous-brown, barred with dusky blackish, less distinctly on the latter; under wing-coverts dull ashy, as also the inner lining of the quills. Total length 3·9 inches, culmen 0·75, wing 2·3, tail 1, tarsus 0·9.

*Adult female.* Similar in plumage to the male. Total length 3·5 inches, culmen 0·75, wing 2·2, tail 0·8, tarsus 0·85.

*Young female.* Similar in plumage to the adult, the under surface of the body more plainly banded with ashy whitish and lighter brown, especially on the sides; the edgings to the feathers of the upper surface rather broader and more distinct. Total length 3·7 inches, culmen 0·8, wing 2·1, tail 0·9, tarsus 0·8.

The White-banded Wren is an inhabitant of Guiana.

*a.* ♀ ad. sk. Bartica Grove, Demerara, Jan. 19, 1880. H. Whitely, Esq. [C.].

### 2. Microcerculus albigularis.

Heterocnemis albigularis, *Sclater, P. Z. S.* 1858, p. 67.
Cyphorhinus albigularis, *Sclater, Cat. Amer. B.* p. 19; *Gray, Hand-l. B.* i. p. 193, no. 2665.
Pheugopedius albigularis, *Baird, Review Amer. B.* p. 114.
Microcerculus albigularis, *Sclater & Salv. Nomencl. Av. Neotr.* p. 6; *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 76.

*Adult* (Sarayacu, Ecuador; C. Buckley). General colour above brown, with slight indications of blackish margins to the feathers, a little more distinct on the head, which is slightly darker than the back; least wing-coverts like the back; median coverts blackish, margined with brown, the primary-coverts blackish, subterminally barred with white, forming a band across the wing; quills blackish,

rather browner on the outer edge of the primaries; tail-feathers blackish brown, the centre one indistinctly barred under certain lights; lores and feathers round the eye ashy brown; ear-coverts dark ashy washed with brown; cheeks ashy white; throat pure white; fore neck and breast ashy grey, slightly mottled with cross lines of dusky, some of the feathers with subterminal bars of ashy whitish in the centre of the breast; sides of body, flanks, and under tail-coverts reddish brown, barred across with narrow blackish markings, less pronounced on the under tail-coverts; thighs dusky brown, washed with reddish brown; under wing-coverts ashy brown, with a slight wash of clearer brown; quills dusky brown below, paler and more whity brown along the edge of the inner web. Total length 4·1 inches, culmen 0·75, wing 2·55, tail 1·2, tarsus 1·0. (*Mus. Salvin and Godman.*)

*Young.* In general similar to the adult, but having the blackish edgings to the feathers of the upper surface more distinct; the white band on the wing somewhat tinged with ochraceous buff; underparts paler than in the adult, the breast light ashy, very distinctly barred with dusky brown. (*Mus. Salvin and Godman.*)

The Western White-banded Wren occurs only in Eastern Ecuador.

### 3. Microcerculus philomela.

Ruiseñor, *Salvin, Ibis*, 1861, p. 144.
Cyphorhinus philomela, *Salvin, P. Z. S.* 1861, p. 202; *id. Ibis*, 1861, p. 352; *Gray, Hand-l. B.* i. p. 193, no. 2663.
Microcerculus philomela, *Baird, Review Amer. B.* i. p. 114 (part).
Microcerculus philomela, *Sclater & Salv. Nomencl. Av. Neotr.* p. 6; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 76, tab. v. fig. 3.

*Adult male* (type of species). General colour above brown, the feathers edged with blackish, producing a somewhat scaly appearance; head dusky brown, darker than the back, the feathers edged with blackish and inclining to lighter brown in the centre of the crown; least wing-coverts like the back; median coverts blackish, with a subterminal bar of brown, and a spot of buffy white on a few of the feathers; greater coverts black, externally edged with brown, and having a small triangular spot of white just before the tip of the feather; quills blackish, externally margined with dull ashy brown; tail-feathers blackish; lores and ear-coverts ashy washed with brown; cheeks and under surface of body dull ashy, mottled all over with cross-markings of dusky brown, the feathers being brown at the base and on the margins, with a subterminal band of ashy, although the latter is the prevailing colour; sides of body brown, with dusky margins to the feathers; under tail-coverts blackish, barred with brown; under wing-coverts dusky brown, the feathers edged with clear brown; quills dusky brown below, slightly paler along the edge of the inner web. Total length 4·2 inches, culmen 0·75, wing 2·2, tail 0·95, tarsus 0·85. (*Mus. Salvin and Godman.*)

*Young.* Differs from the adult in being lighter and more ochraceous brown, the head being scarcely any darker than the back; the edges to the wing-coverts are also much lighter brown, and all have a subterminal triangular spot or streak of ochraceous buff; throat white, with dusky-brown margins to the feathers; the under surface much lighter than in the adult, the cross bars being white instead of ashy grey.

The Ruiseñor Wren is an inhabitant of Guatemala.

| | | | |
|---|---|---|---|
| *a*. Ad. sk. | Guatemala. | Purchased. |
| *b*. Juv. sk. | Vera Paz, Guatemala. | O. Salvin, Esq. [C.]. |

### 4. Microcerculus luscinia.

Cyphorhinus bambla?, *Lawr. Ann. Lyc. N. Y.* vii. p. 320 (*nec Bodd.*).
Cyphorhinus philomela, *Lawr. Ann. Lyc. N. Y.* vii. p. 467 (*nec Salv.*).
Microcerculus philomela, *Baird, Review Amer. B.* i. p. 114 (pt., *nec Salv.*).
Microcerculus luscinia, *Salvin, P. Z. S.* 1866, p. 69, 1867, p. 134; *Sclater & Salv. Nomencl. Av. Neotr.* p. 6; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 77, tab. v. fig. 4.
Cyphorhinus luscinia, *Gray, Hand-l. B.* i. p. 193, no. 2666.

*Adult male* (Santa Fé, Veragua; E. Arcé: type of species). General colour above clear brown, the feathers with more or less obsolete blackish margins, the latter more distinct on the head, which is rather duller than the back; wing-coverts blackish brown, edged with the same colour as the back, the margins to the greater series a little darker, like those of the innermost secondaries; quills blackish brown; tail also blackish brown; lores and ear-coverts dull ashy, slightly washed with brown; cheeks and throat dull white, with narrow dusky margins, scarcely perceptible; breast ashy grey, the feathers washed with brown; the centre of the body dull ashy white, mottled with brown cross-markings; sides of body light brown, with indistinct indications of blackish-brown cross bars; under tail-coverts blackish, with reddish-brown cross-markings; under wing-coverts and axillaries ashy brown, washed with clearer brown; quills dusky brown below, lighter brown along the edge of the inner web. Total length 3·6 inches, culmen 0·75, wing 2·15, tail 1, tarsus 0·85. (*Mus. Salvin and Godman.*)

*Adult female* (Santiago de Veragua, E. Arcé). Similarly coloured to the male, but a little more chestnut-brown. Total length 3·5 inches, culmen 0·8, wing 2·2, tail 0·9, tarsus 0·9. (*Mus. Salvin and Godman.*)

The Veraguan Wren is confined to Veragua and Panama, where it is extremely rare.

### 5. Microcerculus bicolor.

Heterocnemis bicolor, *Des Murs in Casteln. Voy., Oiseaux,* p. 51, pl. 16. fig. 3 (type examined).

*Adult* (Sarayacu, Ecuador: C. Buckley). General colour above dark rufescent brown, with a few indications of dusky-brown margins on the feathers of the hind neck and head, the latter a little more dusky than the back; lesser wing-coverts like the back; median and greater coverts dark brown, narrowly edged with brown like the back; quills blackish brown, externally edged with rufous-brown, the inner secondaries barred externally with black on the outer web; tail-feathers blackish brown; lores and ear-coverts dull ashy; cheeks white, with narrow dusky margins to the feathers; entire throat and breast pure white; sides of body earthy brown, with dusky blackish cross bars, more distinct upon the abdomen, which is coloured like the flanks; sides of the lower breast barred very plainly with dusky brown, the outer webs being white, the inner brown; thighs brown; under tail-coverts reddish brown, narrowly barred with dusky blackish; under wing-coverts brown, the greater series dull ashy; the quills dull ashy brown below, paler along the edge of the inner web. Total length 3·75 inches, culmen 0·75, wing 2·3, tail 0·8, tarsus 0·9. (*Mus. Salvin and Godman.*)

Castelnau's Wren occurs in Upper Amazonia, whence it extends into Ecuador.

### 6. Microcerculus marginatus.

Heterocnemis marginatus, *Sclater, P. Z. S.* 1855, p. 145; *id. Cat. Amer. B.* p. 19.

Cyphorhinus marginatus, *Gray, Hand-l. B.* i. p. 193, no. 2664.

Microcerculus marginatus, *Sclater & Salv. Nomencl. Av. Neotr.* p. 6; *Taez. P. Z. S.* 1874, p. 506; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 76.

*Adult male.* General colour above chocolate-brown, darker on the head, which has remains of blackish margins to the feathers, these being nearly obsolete on the remainder of the upper surface; wing-coverts and quills dark brown, edged with the same colour as the back; rump and lower back rather more reddish brown than the mantle; tail-feathers blackish; lores and ear-coverts dark ashy; cheeks white, with dusky margins to the feathers; throat and breast white, the former with scarcely any dusky margins, but the latter very distinctly barred with broad edgings to the feathers; abdomen ashy white, mottled with dusky cross-markings; sides of breast dark ashy; sides of body and flanks brown, with scarcely any signs of dusky cross-markings; under wing-coverts dark ashy brown, washed with clearer brown; quills dusky below, lighter along the edge of the inner web. Total length 4·4 inches, culmen 0·8, wing 2·4, tail 2·2, tarsus 0·9.

*Young* (Pebas, Hauxwell). Similar in colour to the adult, but more distinctly barred on the upper surface, the edges to the feathers being dusky blackish; at the tips of some of the greater coverts remains of small triangular spots of fulvous brown; the under surface more distinctly barred than in the adult, the dusky edgings to the feathers being more numerous; the sides of the body rather

more rufous-brown in colour, with more distinct dusky cross-markings of blackish brown. (*Mus. Salvin and Godman.*)

The Scaly-breasted Wren inhabits Colombia and Eastern Peru.

*a.* ♂ ad. sk. Chamicuros, Peruvian Amazons, June 28, 1867. Edward Bartlett [C.].

### 7. Microcerculus tæniatus.

Microcerculus tæniatus, *Salvin, Ibis*, 1881, p. 130, pl. iii. fig. 2.

*Adult* (Balzar Mountains, Ecuador, Illingworth: type of species). General colour above brown, with faint indications of blackish edgings to some of the feathers, especially on the head, which is rather duller than the back; wing-coverts blackish, externally edged with the same colour as the back; quills blackish, the brown margins nearly obsolete on the primaries, a little more distinct on the secondaries, the innermost of which have an indistinctly barred appearance; tail blackish; lores and ear-coverts ashy brown, with a wash of clearer brown; cheeks and throat white, with dusky edgings to the feathers, giving a barred appearance; remainder of under surface of body blackish brown, barred with white, the dark and light bars being about equal in width; sides of body brown like the back, barred with blackish, the under tail-coverts similarly coloured; thighs dusky brown; under wing-coverts ashy brown washed with clearer brown; quills sepia-brown below, paler along edge of the inner web. Total length 3·7 inches, culmen 0·75, wing 2·25, tail 0·9, tarsus 0·85. (*Mus. Salvin and Godman.*)

Illingworth's Scaly Wren is only known from the type specimen, obtained in the Balzar Mountains in Ecuador.

### 8. Microcerculus squamulatus.

Microcerculus squamulatus, *Scl. & Salv. P. Z. S.* 1875, pp. 37, 237, pl. vi.

Microcerculus squamatulus, *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 76.

*Adult male* (type of species). General colour above rufescent brown, slightly varied on the head with dusky margins to the feathers, the upper surface otherwise uniform; wing-coverts dusky brown, edged with rufescent brown like the back, and with the remains of whitish spots at the tips of the greater series; quills blackish brown, externally rufescent brown, with very faint indications of dusky cross bars under certain lights; tail dark brown; lores and ear-coverts slaty brown; cheeks and throat dull whitish, with obsolete remains of dusky margins to the feathers; remainder of under surface whitish, somewhat irregularly barred across with blackish brown; the sides of throat and of fore neck and breast dark ashy brown; the flanks and thighs rufescent brown; under tail-coverts dark brown, faintly barred with dull rufous-brown; under wing-coverts and axillaries brown like the sides of the breast; quills dusky brown below, light brown along the margin of the

inner web; "iris dark brown" (*Goering*). Total length 4·3 inches, culmen 0·6, wing 2·4, tail 0·8, tarsus 0·9. (*Mus. P. L. Sclater.*)

Goering's Scaly-breasted Wren is only known from the type specimen in Dr. Sclater's collection; it was discovered by Mr. Goering in Venezuela, in the Andes of San Cristoval in the province of Tachira, on the frontiers of Colombia.

## 44. PNOEPYGA.

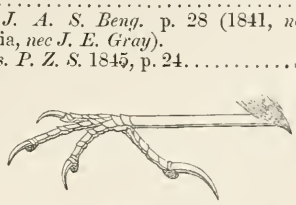
Type.

Tesia (pt.), *Hodgs. J. A. S. Beng.* vi. p. 101 (1837).

Microura, *Gould, Icones Avium*, pl. v. (c. 1837, *nec Ehrenb.*) ..... P. albiventris.

Anura, *Hodgs. J. A. S. Beng.* p. 28 (1841, *nom. emend. pro* Tesia, *nec J. E. Gray*).

Pnoepyga, *Hodgs. P. Z. S.* 1845, p. 24..... P. albiventris.



Leg of *Pnoepyga albiventris*.

*Range.* Himalayan Mountains, ranging throughout the hills of Burma and Tenasserim. Not found in Malacca, but reappearing in Sumatra and Java.

The right title for this genus is not easy to find, inasmuch as Hodgson and subsequent authors have confounded under one heading birds which are true Wrens and others which are truly Timeliine, the latter being *Tesia castaneocoronata* and *T. cyaniventris*. The literary history of these genera seems to be as follows. Swainson in 1831 (Faun. Bor.-Amer. p. 488) described a genus, *Aipunemia*, with full characters, but without indicating any type. He mentions three species as existing in the British and Paris Museums, but undescribed at that date. When he speaks of the bill as resembling that of *Cinclus*, one fancies he has *P. squamata* before him; but afterwards he mentions the tail as being short and rounded, and that would seem to be taken from *Tesia cyaniventris* or its ally. On that account I do not think that *Aipunemia* of Swainson can enter into ornithological nomenclature, especially as no type is mentioned; the name, moreover, appears to have been dropped by Swainson himself, as it does not re-occur in his 'Classification of Birds' (1836–37).

In 1837 Hodgson described his genus *Tesia*, but also mixed up *Aipunemia* with it. At first he would appear to have questioned whether the latter was identical with his genus *Tesia*: but as he mentions in a footnote the difference in the nostrils between the two genera, he apparently considered them distinct, though his meaning is by no means clear. As left by Hodgson in 1837, the genus *Tesia* was a composite one.

Gould, in the 'Icones Avium,' gives a good figure of *Microura*

*squamata* and founds the genus *Microura*, which, however, was preoccupied by Ehrenberg, and therefore falls to the ground. No date is given to this work; but we know that it was published between 1837 and 1841, as Hodgson in the latter year speaks of *Microura* of Gould as having been published "since" 1837.

In 1841 Hodgson having been warned that some of his names, taken from the Nepalese vernacular, were likely to be rejected for names more classically compounded, proposed that of *Anura* for *Tesia*, and pronounced it identical with *Microura* of Gould. *Anura* cannot be employed, as it is preoccupied by Dr. Gray for a genus of Bats and also for a genus of *Ophiuridæ* (1840).

In his Catalogue of Nepalese birds (Gray's Zool. Misc. p. 82), Hodgson further clears up his meaning by mentioning a new genus *Pnoepyga* with four species, *P. concolor*, *P. pusilla*, *P. rufiventer*, and *P. albiventer*; and he places in another genus, *Oligura*, the two other birds previously placed with *Tesia*. In the 'Proceedings' for 1845, p. 24, he fully describes *Pnoepyga* and *Oligura*, and explains that he had previously confounded the species. *Oligura*, therefore, is the proper name for *O. castaneocoronata* and *O. cyaniventer*, and not *Tesia*, which is expressly stated by Hodgson to be a synonym of *Pnoepyga*. The late Mr. G. R. Gray was on that account quite wrong when in the 'Hand-list' (i. p. 188) he once more united all the Nepalese species under *Tesia*, and retained *Tesia* for the section containing *O. castaneocoronata* and *O. cyaniventer*.

*Key to the Species.*

*a*. Wing-coverts spotted at the tip with fulvous; tail scarcely visible.
  *a'*. Larger: legs stouter; tarsus 0·85 inch..... *albiventris*, p. 302.
  *b'*. Smaller: legs more slender; tarsus 0·65–0·8 inch { *pusilla*, p. 304. / *rufa*, p. 304.
*b*. No spots on wing-coverts; tail apparent and extending beyond tips of wings ..... *caudata*, p. 305.

## 1. Pnoepyga albiventris.

Tesia albiventer, *Hodgs. J. A. S. Beng.* vi. p. 102; *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 62.
Tesia rufiventer, *Hodgs. J. A. S. Beng.* vi. p. 102; *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 62.
Microura squamata, *Gould, Icones Avium*, pl. v.
Tesia squamata, *Blyth, J. A. S. Beng.* xiv. p. 586; *Gray, Hand-l. B.* i. p. 188, no. 2558.
Pnoepyga albiventer, *Hodgs. Icon. ined. in Mus. Brit., Pass.* pls. xlvii. (491) and xlviii. fig. 3; *id. P. Z. S.* 1845, p. 25; *Bp. Consp.* i. p. 258.
Pnoepyga flaviventer, *Hodgs. Icon. ined.* pl. xlvii. fig. 1 (457).
Pnoepyga rufiventer, *Hodgs. P. Z. S.* 1845, p. 25.
Pnoepyga concolor, *Hodgs. Icon. ined.* pl. xlvii. fig. 2 (847).
Pnoepyga unicolor, *Hodgs. t. c.* p. 25.
Tesia albiventris, *Gray, Gen. B.* i. p. 156.

Pnoepyga squamata, *Blyth*, *Cat. B. Mus. As. Soc.* p. 179; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 180; *Jerd. B. Ind.* i. p. 488; *Beavan, Ibis*, 1865, p. 422; *Pelz. Ibis*, 1868, p. 308; *Blyth, Ibis*, 1870, p. 167; *Godwin-Aust. J. A. S. Beng.* xxxix. p. 101 (1870); *Jerd. Ibis*, 1872, p. 130; *Hume, Str. F.* 1878, p. 93; *Hume & Davison, t. c.* p. 234; *Hume, Str. F.* 1879, p. 93.

*Adult.* General colour above dark earthy brown, the feathers slightly margined with dusky blackish, producing a somewhat scaled appearance: most of the feathers of the upper surface with an ochraceous spot at the tip of the feather; lesser and median wing-coverts like the back, the ochraceous spots a little larger; greater coverts and quills dusky brown, rather rufescent brown externally; tail-feathers rufous-brown; lores fulvescent; ear-coverts brown, longitudinally streaked with pale fulvous along the shafts; cheeks and throat dull white, mottled with dusky edges to the feathers; breast largely mottled with white, the feathers being centred with a large spot of brown and narrowly edged with dusky brown, producing a strongly scaled appearance; sides of breast also scaly, the feathers having a broad subterminal ring of white; thighs brown; under wing-coverts ochraceous buff, edged with brown; quills uniform sepia-brown below; "legs fleshy brown; bill dusky brown above, fleshy at the base beneath; irides brown" (*Jerdon*). Total length 3·5 inches, culmen 0·5, wing 2·1, tail 0·5, tarsus 0·85.

*Younger* birds appear to be more rufous than the adults on the upper surface, and below ochraceous buff in tint, the throat being uniform, and the scaly appearance of the breast and sides being produced by ochraceous-buff subterminal bars, instead of white; breast-feathers ochraceous buff, with dark-brown centres for the most part concealed.

The quite young bird, *P. unicolor* or *P. concolor* of Hodgson, is distinguished by its yellow under mandible and uniform coloration, the upper surface being dull rufous-brown, more dusky on the head, while the under surface is sooty black, washed with brown on the flanks and abdomen.

The Scaly-breasted Hill-Wren occurs throughout the Himalayas, ranging into the Karen Hills in Burmah.

| | | |
|---|---|---|
| *a.* Ad. sk. | Between Mussoorie and Simla. | Capt. Stackhouse Pinwill [P.]. |
| *b.* Ad. sk. | Himalayas. | Eyton Collection. (Type of *M. squamata.*) |
| *c, d, e.* Ad. sk. | Nepal. | B. H. Hodgson, Esq. (Types of *P. albiventer.*) |
| *f–i.* Ad. sk. | Nepal. | B. H. Hodgson, Esq. (Types of *P. flaviventer.*) |
| *k.* Juv. sk. | Nepal. | B. H. Hodgson, Esq. (Type of *P. concolor.*) |
| *l.* Imm. sk. | Nepal. | B. H. Hodgson, Esq. |
| *m–s.* Ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *t–w.* Ad. sk. | Nepal (*Hodgson*). | India Museum. |

### 2. Pnoepyga pusilla.

Pnoepyga pusilla, *Hodgs. P. Z. S.* 1845, p. 25; *id. Icon. ined. in Brit. Mus.* pl. xlvii. fig. 4 (870), *App.* pl. xxvi. (978); *Blyth, Cat. B. Mus. As. Soc.* p. 179; *Bp. Consp.* i. p. 258; *Horsf. & Moore, Cat. B. E.I. Co. Mus.* i. p. 180; *Godwin-Aust. J. A. S. Beng.* xxxix. p. 101 (1870); *Jerd. B. Ind.* i. p. 489; *id. Ibis*, 1872, p. 130; *Hume & Davis. Str. F.* 1878, p. 234; *Hume, Str. F.* 1879, p. 93.

Tesia pusilla, *Blyth, J. A. S. Beng.* xiv. p. 588; *Gray, Hand-l. B.* i. p. 188, no. 2559.

Pnoepyga lepida, *Salvad. Ann. Mus. Civic. Genov.* xiv. p. 227*.

*Adult.* General colour above brown, the wing-coverts like the back; the greater series and the quills reddish brown externally, with a spot of ochraceous buff at the tips of the median and greater coverts and the feathers of the bastard wing as well as the scapularies; tail rufous-brown; lores dull whitish; ear-coverts dusky brown, with narrow whitish shaft-lines; cheeks and throat dull white, slightly mottled with dusky edgings to the feathers; remainder of the under surface of body dull white, with more or less concealed bases of dusky brown; flanks dull brown, broadly edged with white or ochraceous buff; under wing-coverts ochraceous buff; quills ashy brown below; "upper mandible blackish, lower one pale brown; legs and feet pale brown; iris deep brown" (*W. Davison*). Total length 2·7 inches, culmen 0·55, wing 1·9, tail 0·5, tarsus 0·65.

*Young.* Differs from the adult in being more rufous above, especially on the wings; ear-coverts dull fulvous brown, with buffy whitish shaft-lines, the upper edge of the ear-coverts darker brown; under surface of body ochraceous buff, mottled with dusky-brown centres to the feathers.

The Brown Hill-Wren is found in the Eastern Himalayas, extending into Tenasserim, and probably ranging into the hills of Sumatra.

| | | |
|---|---|---|
| *a, b.* Ad.; *c, d.* Jun. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. (Types of species.) |
| *e.* Ad. sk. | Nepal (*Hodgson*). | India Museum. |
| *f.* Ad. sk. | Himalayas. | Gould Collection. |

### 3. Pnoepyga rufa.

Microura squamata, *Bp. Consp. Gen. Av.* i. p. 258 (*nec Gould*).

*Adult male.* Similar to *P. pusilla*; but everywhere more rufous, especially on the lores, forehead, ear-coverts, and spots on the wings, the latter being much more rufous in appearance than in the Hima-

* In uniting *P. lepida* of Salvadori, from Sumatra, with *P. pusilla*, I do so with all reserve, never having seen a Sumatran specimen. As, however, there can be no doubt that *Pteruthius cameranoi* of Sumatra is identical with *P. æralatus* of Tenasserim (*cf.* Wardlaw Ramsay, P. Z. S. 1880, p. 16), there is no difficulty in believing that the Himalayan *Pnoepyga pusilla*, which also occurs in Tenasserim, may extend to Sumatra.

layan bird; a rufous eyelid also conspicuous; underneath white, with a tinge of fulvous on the breast, the feathers edged with dusky brown; sides of breast mottled with dark brown centres; sides of body rufescent brown, with a scaly appearance caused by the rufescent ochre markings on the feathers, which are further edged with dusky. Total length 3 inches, culmen 0·55, wing 2, tail 0·5, tarsus 0·85. (*Mus. Lugd.*)

*Adult female.* Exactly like the male. Total length 3·2 inches, culmen 0·55, wing 2·05, tarsus 0·8. (*Mus. Lugd.*)

This seems to be a representative form of *P. pusilla* of the Himalayas; and I have not separated it without a careful comparison of the two typical specimens at Leyden with a large series from the Tweeddale collection which I took over with me for the purposes of comparison. It may ultimately turn out that this Javan bird, which is from Mount Gédé, may prove to be identical with *Pnoepyga lepida* of Salvadori from the Sumatran hills (*vide anteà*).

The Rufous Hill-Wren is only known as yet from the mountains of Java.

### 4. Pnoepyga caudata.

Tesia caudata, *Blyth, J. A. S. Beng.* xiv. p. 588; *Hodgs. Icon. ined. Brit. Mus., Passeres, App.* pl. xxvii. (no. 922); *Gray, Hand-l. B.* i. p. 188, no. 2560.

Pnoepyga caudata, *Blyth, Cat. B. Mus. As. Soc.* p. 179; *Bp. Consp.* i. p. 258; *Horsf. & Moore, Cat. B. E.I. Co. Mus.* i. p. 181; *Godwin-Aust. J. A. S. Beng.* xxxix. p. 101 (1870); *Jerd. B. Ind.* i. p. 490; *id. Ibis*, 1872, p. 130; *Hume, Str. F.* 1879, p. 93.

*Adult.* General colour above brown, the head somewhat scaled with narrow blackish edges to the feathers; wings a little more brown than the back; tail reddish brown; lores, an indistinct eyebrow, fore part of cheeks, and ear-coverts dark ashy, the upper edge of the ear-coverts browner; throat ferruginous; remainder of under surface mottled with ochraceous, the feathers centred with dark brown, the lower breast and flanks barred with white near the tip, and also longitudinally centred with white; flanks brown, with subterminal bars of ochraceous buff; under wing-coverts brown, the lower series white forming a bar; quills uniform brown below; "bill blackish; legs brown; irides brown" (*Jerdon*). Total length 3·3 inches, culmen 0·5, wing 1·9, tail 1·2, tarsus 0·75.

*Young.* Similar to the adult, but more rufous-brown; ear-coverts ashy brown; lores, base of chin, and cheeks white; throat chestnut; fore neck, chest, and sides of body rufous-brown; breast and abdomen dusky brown, with whitish streaks in the centre of the feathers.

The Tailed Hill-Wren inhabits the Eastern Himalayas. It is by no means a typical *Pnoepyga*, but has a long tail like *Urocichla longicaudata*, with which, however, it does not otherwise agree generically.

| | | |
|---|---|---|
| *a.* Ad. sk. | Himalayas. | Gould Collection. |
| *b.* Ad. sk. | Nepal. | Gould Collection. |

| | | |
|---|---|---|
| *c, d, e.* Ad.; *f.* Juv. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *g.* Ad.; *h, i.* Juv. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *k–o.* Sk. | Nepal (*B. H. Hodgson*). | India Museum. |

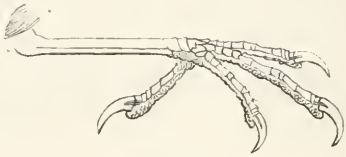
## 45. CINCLUS.

Type.

Cinclus, *Bechst. Orn. Taschenb.* p. 206 (1802) ..... C. cinclus.
Aquatilis, *Montagu, Orn. Dict. Suppl. Cat.* p. 2 (1813).. C. aquatilis.
Hydrobata, *Vieill, Nouv. Dict. d'Hist. Nat.* i. p. 219 (1816). C. albicollis.

Cf. *Salvin, Ibis*, 1867, pp. 109–122; *Seebohm, Ibis*, 1880, p. 190.

Bill of *Cinclus*.



Leg of *Cinclus*.

*Range.* As a rule Dippers are northern birds, and are largely spread over the Palæarctic Region wherever there are mountains with swiftly flowing streams to afford a suitable habitat. They are found over the greater part of Europe and Northern Asia, and occur on the Atlas Mountains in Algeria, and again in Asia Minor and the mountains of the Lebanon. Though met with in Scandinavia and Northern Russia, they appear to be only scantily represented in the greater part of the latter country; but they reappear in the Ural Mountains and Caucasus, whence they extend through Persia into Central Asia and to Cashmere; thence they range throughout the Himalayas, and the greater part of China and Western Siberia, inhabiting Kamtschatka and the Aleutian Isles.

In the New World they are found from the Yukon southwards along the Rocky Mountains to the highlands of Mexico and Central America. Two species only occur in South America, in the Andes of Colombia, Ecuador, and Peru.

*Key to the Species.*

*a.* No white cap.
  *a'.* Throat white.
    *a.* Throat and chest white; breast and abdomen darker ..... } *cinclus* and allies, p. 311.
    *a'.* Flanks conspicuously grey.
      *a''.* Rufous breast conspicuous and bright.
        *a'''.* Head dark brown; upper parts generally dark; breast conspicuously rufous, but the abdomen blackish ..... *aquaticus*, p. 307.
        *β'''.* Head lighter brown; upper parts generally paler; breast bright rufous, extending onto the abdomen ..... *albicollis*, p. 310.

$\beta''$. Breast black, like the centre of the abdomen, or only a slight indication of a dull rufous breast-band .... *cinclus*, p. 311.
$\beta'$. No rufous on breast, which is chocolate-brown, lighter than the abdomen; brown of head and mantle extending down the back ..... *cashmeriensis*, p. 312.
$\beta$. Throat and entire underparts white to the vent; sides of body blackish ..... *leucogaster*, p. 314.
*b'*. Throat chocolate-brown or greyish brown, like the rest of the under surface.
*a''*. Back brown or blackish.
*a'''*. Light chocolate-brown above and below; wings and tail blackish brown *asiaticus*, p. 314.
*b'''*. Dark chocolate-brown; wings and tail ashy grey ..... *pallasi*, p. 316.
*c'''*. Head and neck chocolate-brown, as also throat and chest; back dark grey; belly blackish ..... *sordidus*, p. 317.
*b''*. Back grey, as also the breast.
*d'''*. Much larger; wing 3·6–3·75 inches: colour slaty grey; throat light brown *mexicanus*, p. 317.
*e'''*. Much smaller; wing 3·0–3·4 inches: colour delicate grey; throat ashy brown ..... *ardesiacus*, p. 319.
*b*. With a white cap.
*c'*. With the centre of the back and interscapulary region white ..... *leuconotus*, p. 320.
*d'*. With the back entirely sooty black; no white on the interscapulary region ..... *leucocephalus*, p. 321.

## 1. Cinclus aquaticus.

The Water Ouzel, *Albin, Nat. Hist. B.* ii. p. 36, pl. 39 (1738, "Cumberland," fig. pess.).
Le Merle d'eau, *Briss. Orn.* v. p. 252 (1760); *Daubent. Pl. Enl.* ix. pl. 940; *Buff. Hist. Nat. Ois.* viii. p. 134 (1781).
Turdus cinclus (*nec L.*), *Lath. Ind. Orn.* i. p. 343 (1790).
Sturnus cinclus (*nec L.*), *Beseke, Vög. Kurlands*, p. 72 (1792); *Bechst. Naturg. Deutschl.* iv. p. 167 (1795).
Penrith Ouzel, *Lath. Gen. Syn. Suppl.* p. 177 (1801).
Turdus gularis, *Lath. Ind. Orn. Suppl.* pl. xl. (1801).
Cinclus aquaticus, *Bechst. Orn. Taschenb.* i. p. 206 (1802); *Meyer u. Wolf, Taschenb.* i. p. 207, cum fig. (1810); *Meyer, Vög. Liv- u. Esthl.* p. 107 (1815); *Temm. Man. d'Orn.* i. p. 178 (1815); *Koch, Syst. baier. Zool.* p. 194 (1816); *Naum. Vög. Deutschl.* iii. p. 925, Taf. 91 (1822); *Brehm, Lehrb. eur. Vög.* i. p. 287 (1823); *Werner, Atlas, Insectivores*, pl. 22 (1827); *Brehm, Vög. Deutschl.* p. 395 (1831); *Temm. Man. d'Orn.* iii. p. 105 (1835); *Gould, B. Eur.* ii. pl. 83 (1837); *Yarrell, Brit. B.* i. p. 181 (1841); *Thomps. B. Irel.* i. p. 116 (1849); *Cab. Mus. Hein.* Th. i. p. 11 (1850); *Bp. Consp.* i. p. 252 (pt., 1850); *Schl. Vog. Nederl.* p. 118, pl. 66 (1854); *Hewits. Eggs Brit. B.* i. p. 53, pl. xvii. fig. 1 (1856); *Brehm, Naum.* 1856, p. 185; *Newt. List B. Eur.* p. 8 (1862); *Harting, B. Middlesex*, p. 27 (1866); *Salvin, Ibis*, 1867, p. 113; *Borggr. Vogelf. Norddeutschl.* p. 85 (1869); *Fritsch, Vög. Europa's*, p. 133 (1870); *Newt. ed. Yarr. Brit. B.* i. p. 241 (1872); *Dresser, B. Eur.* ii. p. 167 (1874);

*Harting, Handb. Br. B.* p. 10 (1872); *Altum, Forstzoologie*, p. 207 (1873); *Fallon, Ois. Belg.* p. 45 (1875); *Saunders, Bull. Soc. Zool. France*, ii. p. 15 (1877); *Tacz. t. c.* p. 139.

Aquatilis cinclus, *Mont. Orn. Dict. Suppl. Cat.* p. 2 (1813, *nec L.*).

Cinclus europæus, *Leach, Syst. Cat. Mamm. etc.* p. 21 (1816); *Steph. Gen. Zool.* x. p. 313, pl. 30 (1817); *Macgill. Brit. B.* ii. p. 50 (1839).

Cinclus albicollis, pt., *Vieill. N. Dict. d'Hist. Nat.* i. p. 219.

Cinclus medius, *Brehm, Vög. Deutschl.* p. 395, cum fig. (1831); *id. Naum.* 1856, p. 185.

Hydrobata cinclus, *Gray, List Gen. B.* 1841, p. 35; *id. Gen. B.* i. p. 215 (1846); *Blyth, Cat. B. Mus. As. Soc.* p. 158 (1849); *Degl. et Gerbe, Orn. Eur.* i. p. 399 (1867); *Gray, Hand-l. B.* i. p. 265, no. 3899 (1869).

Cinclus meridionalis, *Brehm, Naum.* 1856, p. 186.

Cinclus rufipectoralis, *Brehm, t. c.* p. 186.

Cinclus peregrinus, *Brehm, t. c.* p. 187.

Cinclus rupestris, *Brehm, t. c.* p. 188.

*Adult male* (Penmyre, S. Wales). General colour above dark grey, all the feathers edged with black, producing a mottled appearance; wing-coverts and quills blackish brown, edged with grey; bastard wing- and primary-coverts dark brown; the grey margins to the primaries narrower than those of the secondaries; tail-feathers ashy brown, the feathers tipped with dull rufous; entire head and hind neck, as well as the sides of the neck, sides of face, and ear-coverts, clear chocolate-brown; cheeks, throat, fore neck, and chest pure white; above and below the eye a spot of white; entire breast and remainder of under surface deep rufous; the sides of the body, thighs, vent, and under tail-coverts dark slaty brown; under wing-coverts dark brown, washed with slate-colour, the axillaries tipped with white; quills dark brown below, ashy fulvous above the inner web; "bill bluish black, tinged with brown at the edges; palate white; tongue blackish anteriorly, yellowish behind; tarsi and toes bluish grey tinged with brown: claws dusky; iris pale brown, with a ring of black in the middle" (*Macgillivray*). Total length 7·2 inches, culmen 0·85, wing 3·55, tail 2·15, tarsus 1·15.

*Adult female* (Penmyre). Like the male, but darker brown and not so ashy on the flanks and under tail-coverts. Total length 6·6 inches, culmen 0·8, wing 3·3, tail 2·1, tarsus 1·05.

*Young.* Above dusky grey, with blackish edges to all the feathers, producing a mottled appearance, some of the coverts also streaked with black along the shafts; wing-coverts and quills blackish, with grey edgings, the quills with a very narrow margin of white at the tip; head and neck a little browner than the back, the feathers having the same blackish margins; above and below the eye a small spot of white; cheeks and under surface of body white, obscured by dull-brown edgings to the feathers, the flank-feathers slaty grey edged with black; under tail-coverts rufescent, with fulvous mesial streaks and tips; under wing-coverts like the breast, white with blackish margins; axillaries blackish, tipped with white.

*Young of the year after first moult.* Similar to the adult, but very much darker, the upper surface being blackish, mottled slightly

with subterminal markings of dusky grey; the whole head and neck of a deep chocolate-brown, far darker than in the old bird; the rufous on the breast not so bright and more of a brownish-rufous tint, confined also to the breast, and not extending so far onto the abdomen as in the English bird. Total length 7·8 inches, culmen 0·8, wing 3·5, tail 2·1, tarsus 1·15.

The Common White-throated Dipper is widely spread over Central and Western Europe. It has been said to occur in the Faeroes, and is found throughout Ireland in suitable localities, as well as Scotland with the Hebrides, and breeds in the northern and central counties of England, as well as in Wales and the south-western counties. In other counties it is an accidental visitor. It is found in the mountainous parts of France, and occurs, on migration, in the south-eastern departments, where *C. albicollis* would seem to be the resident Dipper. It is only found in the mountain-streams of certain parts of Belgium, and is of rare occurrence in Holland. As far as can be determined it occurs throughout the whole of Germany, as far eastwards as 30° E. long.; but is probably replaced by *C. albicollis* to the south of the Danube and the Swiss Alps. Its north-eastern range has not been well defined; but from the descriptions and figures it would appear to be the present species which is found in the Baltic provinces.

A word of caution is necessary as to the identification of the Common Dipper and the black-bellied form (*C. cinclus*), which has been said to occur in Ireland by Mr. Dresser. An examination of the specimens referred to by the latter gentleman shows that the birds so named are only young birds of the year of the ordinary *C. aquaticus* after their first moult, at which time they are hardly to be distinguished from *C. cinclus*. *C. cashmeriensis* also, after its first moult from the spotted stage (in which all Dippers very closely resemble each other), is remarkably like *C. cinclus*.

Though I regard all the Dippers from the countries mentioned above as referable to one species (*C. aquaticus*), the English specimens are much the finest in colour underneath, and form, to the experienced eye, an easily recognizable race. Many of the Spanish and Pyrenean birds, too, are as near *C. aquaticus* as they are *C. albicollis*.

| | | |
|---|---|---|
| *a, b.* ♂ ♀ ad. sk. | Orkneys (*Dunn*). | Gould Collection. |
| *c.* Ad. st. | Inverness. | Mr. J. Baker. |
| *d.* Ad. sk. | Aboyne, Aberdeenshire, Sept. 1871. | R. B. Sharpe, Esq. [P.]. |
| *e.* Ad. sk. | Gaick Forest, Perthshire, Aug. 1872. | Colonel Irby [P.]. |
| *f, g.* Ad. st. | Rednock, Perthshire. | Charles Coningham, Esq. [P.]. |
| *h.* Juv. sk. | Derbyshire moors (*O. S.*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *i.* ♀ ad. sk. | Derbyshire. | Gould Collection. |
| *k.* Ad. sk. | Wales. | J. Gould, Esq. |
| *l, m.* ♂ ♀ ad. sk. | Penmyre, S. Wales. | J. Gould, Esq. |
| *n, o.* ♂ ♀ ad. sk. | Penmyre, Nov. 1859. | Gould Collection. |

| | | |
|---|---|---|
| *p.* Ad. sk. | Monmouthshire. | Colonel Montagu [P.]. |
| *q.* Pull. sk. | England. | J. Gould, Esq. |
| *r.* Ad. sk. | England. | F. Godman and O. Salvin, Esqrs. [P.]. |
| *s, t.* Ad. st. | England. | W. B. Spence, Esq. [P.]. |
| *u.* Ad. sk. | Co. Tipperary (*Dr. Bradshaw*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *v, w.* ♂ ♀ ad. sk. | Vosges Mountains. | Edward Hargitt, Esq. [P.]. |
| *x.* Ad. hiem. sk. | Galicia. | Baron A. von Hügel [P.]. |

## 2. Cinclus albicollis.

Hydrobata albicollis, *Vieill. N. Dict. d'Hist. Nat.* i. p. 219 (1816); *id. & Bonn. Enc. Méth.* p. 686 (part); *Roux, Orn. Prov.* pls. 178, 179 (1825); *Gray, Hand-l. B.* i. p. 266, no. 3900 (1869).

Cinclus aquaticus, *Nordm. in Demid. Voy. Russ. mérid.* iii. p. 152 (1840); *Von d. Mühle, Orn. Griechenl.* p. 57 (1844); *Bp. Consp.* i. p. 252 (1850); *Jaub. & Barth.-Lapomm. Rich. Orn.* p. 272 (1859); *Linderm. Vög. Griechenl.* p. 76 (1860); *Bettoni, Ucc. nidif. Lomb.* tav. 105 (1865); *Doderl. Avif. Sicil.* p. 103 (1869); *Fritsch, Vög. Eur.* tab. 20. fig. 19 (1870); *Salvad. Faun. Ital. Ucc.* p. 75 (1871); *C. B. Wharton, Ibis,* 1876, p. 23.

Hydrobata cinclus, *Degl. & Gerbe, Orn. Eur.* i. p. 389 (1867, part).

Cinclus albicollis, *Salvin, Ibis,* 1867, p. 114; *Dresser, B. Eur.* ii. p. 181 (1873); *Irby, B. Gibr.* p. 76 (1875); *Saunders, Bull. Soc. Zool. France,* ii. p. 15 (1877).

Cinclus minor, *Tristr. Ibis,* 1870, p. 497.

*Adult male.* General colour above ashy grey, slightly mottled with subterminal bars of dusky brown, the feathers tipped with the same colour, these mottled markings less distinct on the rump and upper tail-coverts; lesser wing-coverts like the back; median and greater series dusky brown, washed with ashy grey externally; quills brown, externally ashy grey; tail-feathers dark ashy brown; head and neck light earthy brown, gradually extending over the mantle; lores, feathers below the eye, and ear-coverts like the head, a little darker below the front of the eye, above the latter a white spot; cheeks, throat, and breast white, the rest of the under surface of body brick-red, dusky on the vent; sides of body, flanks, and under tail-coverts dark ashy grey, the latter with pale rufescent tips; under wing-coverts and axillaries smoky brown, the latter narrowly tipped with white; quills ashy brown below, lighter along the edge of the inner web. Total length 8 inches, culmen 0·9, wing 3·6, tail 2·3, tarsus 1·2.

The Pale-backed White-throated Dipper represents the foregoing species in the countries of the Mediterranean. It is found in Switzerland, in the Austrian Tyrol, Italy, with Sicily and Sardinia, and throughout Greece, being probably the species which has been seen occasionally near Odessa, though the latter may prove to be *C. aquaticus*. In the Pyrenees and the mountains of the Spanish Peninsula it is also found, but in a darker form than true *C. albicollis*; and the same may be said of the Dipper of the Atlas mountains in Algeria (*C. minor*, Tristr.).

| | | |
|---|---|---|
| *a*. Ad. sk. | Europe. | |
| *b*. Ad. sk. | Switzerland. | J. Gould, Esq. |
| *c*, *d*. Ad. sk. | Switzerland. | Gould Collection. |
| *e*. Ad. sk. | Savoy (*A. Basil Brooke*). | R. B. Sharpe, Esq. |
| *f*. ♂ ad. sk. | Piedmont (*Salvadori*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *g*, *h*. Ad. st. | Austria. | Vienna Museum. |
| *i*. ♂ ad. sk. | Baregas, Hautes Pyrénées, May 25, 1872. | A. B. Brooke, Esq. [C.]. |
| *k*, *l*, *m*. ♀ ad. sk. | Luz, Hautes Pyrénées, May 13, 1872. | A. B. Brooke, Esq. [C.]. |
| *n*. ♂ juv. sk. | Luz, Hautes Pyrénées, May 22, 1872. | A. B. Brooke, Esq. [C.]. |

### 3. Cinclus cinclus.

Sturnus cinclus, *Linn. Syst. Nat.* i. p. 290 (1766); *Nozem. Nederl. Vog.* pl. xiv. (1790).

Cinclus albicollis, pt., *Vieill. N. Dict. d'Hist. Nat.* i. p. 219 (1816).

Cinclus septentrionalis, *Brehm, Lehrb. eur. Vög.* i. p. 287 (1823); *id. Vög. Deutschl.* p. 396; *id. Naum.* 1856, p. 188.

Cinclus melanogaster, *Brehm, Lehrb. eur. Vög.* i. p. 289 (1823); *id. Vög. Deutschl.* p. 396 (1831); *Temm. Man. d'Orn.* iii. p. 106 (1835); *Werner, Atlas, Insectivores, Suppl.* pl. 12 (1835); *Gould, B. Eur.* pl. 84 (1837); *Bp. Consp.* i. p. 252 (1850); *Brehm, Naum.* 1856, p. 189; *Gould, B. Gr. Br.* ii. pl. 42; *Salvin, Ibis*, 1867, p. 115; *Fritsch, Vög. Eur.* p. 134, tab. 20. fig. 22 (1870); *Dresser, B. Eur.* ii. p. 177; *Altum, Forstzoologie*, p. 208 (1873).

Cinclus aquaticus (*nec Bechst.*), *Kjærb. Danm. Fugle*, p. 135, tab. 15. fig. 5 (1852); *Schl. Vog. Nederl.* pl. 67 ("*Winterkleid*"); *Sundev. Svensk. Fogl.* p. 74, pl. 11. fig. 5 (1856); *Nilss. Skand. Faun. Fogl.* i. p. 371; *Von Wright, Finl. Fogl.* p. 165 (1859); *Godm. Ibis*, 1861, p. 80; *Stephenson, B. Norfolk*, i. p. 68 (1866); *Feilden, Zool.* 1872, p. 3215; *Collett, Orn. of Norway*, p. 7 (1872).

Hydrobata melanogaster, *Gray, Gen. B.* i. p. 215 (1846); *Degl. et Gerbe, Orn. Eur.* i. p. 391 (1867); *Gray, Hand-l. B.* i. p. 266, no. 3901 (1869).

Cinclus aquaticus, β. melanogaster, *Newt. List B. Eur. Blas.* p. 8 (1862).

*Adult male* (Wermland, Jan. 22, 1873). General colour above slaty grey, all the feathers margined with black, producing a closely mottled appearance; the wing-coverts and quills blackish brown, rather clear grey on their outer webs; bastard wing- and primary-coverts blackish, with narrow ashy tips; tail ashy brown; head, neck, and mantle dull chocolate-brown, as also the sides of the neck, the sides of the face, and ear-coverts; above and below the eye a narrow white mark; cheeks, throat, fore neck, and chest pure white: remainder of under surface of body chocolate-brown, inclining to dark slaty grey on the vent and under tail-coverts; on the upper breast a slight rufous-brown shade extending somewhat on to the flanks; under wing-coverts sooty blackish; quills dusky brown below, greyish on the inner webs. Total length 7·5 inches, culmen 0·85, wing 3·8, tail 2·2, tarsus 1·2.

*Adult female* (Wermland, November 1872). Similar to the male. Total length 7·2 inches, culmen 0·8, wing 3·65, tail 2·15, tarsus 1·05.

The *adult female in winter plumage* (Oct. 26, 1874) differs from the full-plumaged bird in having whity-brown margins to the feathers of the breast, abdomen, and under tail-coverts; these, however, do not last long, as a female bird killed in November has lost all traces of them (*Mus. H. E. Dresser*). The *young female after the autumn moult* is distinguished by broad whity-brown margins to the abdominal feathers and under tail-coverts: in this respect it resembles the old hen bird after her moult; but it is further distinguished by traces of dusky-brown margins on the white throat and breast. These must be mere traces of the preceding young plumage, and doubtless soon disappear.

The Black-bellied White-throated Dipper inhabits Scandinavia and Northern Russia to the neighbourhood of Archangel, and occurs in the Ural Mountains and in several provinces of Russia (*cf.* Dresser, *l. c.*). Accidental in severe winters on the coasts of Northern Germany, Holland, and Belgium; it has also been found several times in the eastern counties of England.

| | | |
|---|---|---|
| *a*. Ad. sk. | Goteborg. | J. Gould, Esq. |
| *b*. ♂ ad. sk. | Wermland, Jan. 22, 1873. | W. Meves [C.]. |
| *c*. ♀ ad. sk. | Wermland, Nov. 1872. | W. Meves [C.]. |
| *d*. ♀ jun. sk. | South Sweden, Jan. 23, 1870. | W. Meves [C.]. |

### 4. Cinclus cashmeriensis.

Cinclus aquaticus, var. rufiventris, *Hempr. & Ehr. Symb. Phys.* fol. bb; *Tristr. Ibis*, 1859, p. 38.

Cinclus aquaticus, var. albiventris, *Hempr. & Ehr. l. c.*; *Tristr. l. c.*

Cinclus aquaticus (*nec Bechst.*), *Ménétr. Cat. rais. Cauc.* p. 29 (1832); *Gould, P. Z. S.* 1834, p. 51; *Strickl. P. Z. S.* 1836, p. 98; *Fraser, P. Z. S.* 1839, p. 120; *Filippi, Viagg. Pers.* p. 346 (1865); *Tristr. Ibis*, 1866, p. 191; *Loche, Expl. Sci. Algérie, Ois.* i. p. 305 (1867); *Pelz. Ibis*, 1868, p. 313; *Bogd. Birds of Cauc.* p. 82 (1879); *Danford, Ibis*, 1880, p. 84.

Hydrobata cinclus, *Adams, P. Z. S.* 1858, p. 489, 1859, p. 180.

Cinclus cashmeriensis, *Gould, P. Z. S.* 1859, p. 474; *id. B. Asia*, pt. xii. (1860); *Salvin, Ibis*, 1867, p. 117; *Blanf. J. A. S. Beng.* xli. p. 48; *Hume, Str. F.* 1879, p. 94; *Scully, Ibis*, 1881, p. 438.

Hydrobata cashmeriensis, *Jerd. B. India*, i. p. 507 (1862); *Blyth, Ibis*, 1866, p. 374; *Stoliczka, J. A. S. Beng.* 1868, p. 33; *Gray, Hand-l. B.* i. p. 267, no. 3903; *Hume & Henders. Lahore to Yark.* p. 189 (1873); *Prjevalski, in Dawson Rowley's Orn. Misc.* ii. p. 201 (1877); *David & Oustalet, Ois. Chine*, p. 147 (1878); *Biddulph, Ibis*, 1881, p. 52.

Cinclus aquaticus, var. leucogaster, *Middend. Reis. Sibir., Zool.* p. 163 (1851); *Radde, Sibir. Reis., Vög.* p. 218 (1863).

Cinclus leucogaster, *Tacz. Bull. Soc. Zool. France*, ii. p. 136 (1876); *Seebohm, Ibis*, 1880, p. 190.

Cinclus aquaticus, var. cashmiriensis, *Blanf. East. Pers.* ii. p. 212 (1876).

*Adult* (type of species). General colour above chocolate-brown on the head and neck, deepening gradually into dark brown on the back; lower back and rump dull slaty brown, a little clearer on the

upper tail-coverts, the lower back pervaded with a shade of chocolate-brown; the rump and upper tail-coverts blackish brown, shaded and edged with slate-colour; scapulars dark brown like the middle of the back; wing-coverts deeper brown than the back; the greater series and the quills blackish brown, externally dull slate-colour; tail-feathers blackish brown, washed with dull slate-colour on their edges; lores, sides of face, and ear-coverts chocolate-brown like the head, forming a well-defined line drawn from the base of the lower mandible; an indistinct spot of white over and under the eye; checks, throat, fore neck, and chest white; breast well defined, chocolate-brown, about the same shade as the neck; the abdomen and flanks deeper brown, as also the thighs and under tail-coverts, the latter slightly washed with slaty grey; under wing-coverts and axillaries very deep brown, darker than the abdomen; quills dark ashy brown below, with a paler margin along the edge of the inner web. Total length 6·8 inches, culmen 0·9, wing 3·9, tail 2·2, tarsus 1·1.

The Brown-backed White-throated Dipper has an extended range. It occurs in the mountainous districts of Asia Minor and the Caucasus and is found in Persia; ranging doubtless through the intervening countries in suitable localities, it is found again in the higher mountain-ranges of Cashmere and Ladak, and reappears again in the hill-regions of Sikkim and Chinese Tartary north of Darjiling, and thence extends into Szetchuen and Kansu in China. It has also been met with by Mr. Seebohm's collectors near Krasno-yarsk in the Yen-e-say region, and is plentiful in the Baikal district; but all the Siberian specimens vary somewhat from typical birds, and show more or less of a strain of *C. leucogaster*, especially in the colouring of the underparts. The bird met with at Udskoj-ostróg by Middendorff, and called by him *Cinclus leucogaster*, was doubtless the Siberian race of the present species.

In the mountains of the Lebanon a Dipper is found which has been referred by writers to *C. albicollis*, but which, to my mind, constitutes a peculiar form, nearer to *C. cashmeriensis*, but with more of a brownish-red shade on the breast, which allies it somewhat to the *C. aquaticus* group.

| | | |
|---|---|---|
| *a*. Ad. sk. | Caucasus. | R. B. Sharpe, Esq. [P.]. |
| *b*, *c*. ♂ ♀ ad. sk. | Zebil, Taurus, Asia Minor, Jan. 20, 1876 (*C. G. Danford*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *d*. Ad. sk. | Persia. | Charles Darwin, Esq. [P.]. |
| *e*. ♂ ad. sk. | Elburz Mountains, near Tehran, 6000 feet. | Col. St. John [C.]. |
| *f*. ♂ ad.; *g*. ♀ imm. sk. | Karij valley, Aug. 1872. | W. T. Blanford, Esq. [C.]. |
| *h*. ♂ ad.; *i*. Juv. sk. | Ladakh, Sept. 1873. | Major J. Biddulph [C.]. |
| *k*. Ad. sk. | Deosai plain, 12,000 feet, July 1880. | Major J. Biddulph [C.]. |
| *l*. Ad. sk. | Cashmere (*Dr. A. Leith Adams*). | Gould Collection. (Type of *C. cashmeriensis*.) |

*a. Light-breasted Palestine form.*

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| *i.* ♂ ad. sk. | Nahr el Kelb. | Canon Tristram [C.]. |

### 5. Cinclus leucogaster.

Sturnus cinclus, var., *Pallas, Zoogr. Rosso-Asiat.* i. p. 426 (1811).
Cinclus leucogaster, *Bp. Consp.* i. p. 252 (1850); *Brandt in Tchihatcheff's Voy. Sc. Altai,* p. 418; *Gould, B. Asia,* pt. xii. (1860); *Salvin, Ibis,* 1867, p. 117; *Severtz. Turkest. Jevotn.* p. 66; *Dresser, Ibis,* 1876, p. 175; *Finsch, Ibis,* 1877, p. 51.
Hydrobata leucogastra, *Gray, Hand-l. B.* i. p. 267, no. 3907 (1869).

*Adult male.* General colour above brown, extending down the whole back, but much paler on the head and neck, especially the sides of the latter; wing-coverts like the back, the median series with narrow whitish margins; primary and greater coverts, as well as the quills, dark slaty grey, blackish brown on the inner webs; upper tail-coverts dark slaty grey, as also the tail-feathers, which are dusky brown on the inner webs; above and below the eye a slight spot of white; lores, sides of face, and ear-coverts brown; cheeks and entire under surface of body white, excepting on the sides of the lower breast and flanks, which are dark sepia-brown; under tail-coverts dark brown, with whity-brown tips; under wing-coverts and axillaries dark sepia-brown, with slightly indicated whitish tips; quills ashy brown below. Total length 7·3 inches, culmen 0·95, wing 3·65, tail 2·3, tarsus 1·15.

The White-bellied Dipper appears to be plentiful in Central Asia, inhabiting the district of the Upper Ob, and extending throughout Turkestan into the countries north of Cashmere. Without affirming that the true *C. leucogaster* extends into the Baikal region and the Yen-e-say, it is certain that many of the birds shot in those districts approach as much to the present species as they do to *C. cashmeriensis*. They always preserve, however, the dusky belly of the latter to a great extent, and thus are not strictly identical with Turkestan specimens.

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| *a.* ♂ ad. sk. | Turkestan (*Severtzoff*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *b.* ♂ ad. sk. | Turkestan (*Severtzoff*). | Gould Collection. |
| *c.* ♀ ad. sk. | Lepsa, Turkestan, May 13 (*Dr. O. Finsch*). | Geogr. Society of Bremen. |
| *d.* ♀ ad. sk. | Mountains west of Kashgar. | Major J. Biddulph [C.]. |

### 6. Cinclus asiaticus.

Cinclus asiaticus, *Swains. Faun. Bor.-Amer., Birds,* p. 174 (1831); *Gould, B. Asia,* pt. xii. (1860); *Salv. Ibis,* 1867, p. 120; *Blanf. J. A. S. Beng.* xli. p. 48; *Pelz. Ibis,* 1868, p. 313; *Severtz. Turkest. Jevotn.* p. 66; *Dresser, Ibis,* 1876, p. 175; *Hume, Str. F.* 1879, p. 94; *Scully, Str. F.* 1879, pp. 281, 365, 367; *id. Ibis,* 1881, p. 437.
Cinclus pallasi, *Vigors, P. Z. S.* 1830–31, p. 54; *Gould, Cent. Himal. B.* pl. 24 (1832); *Hodgs. Icon. ined. Brit. Mus., Passeres,* pls. 136,

137 (nos. 240, 241); *id. in Gray's Zool. Misc.* p. 83 (1844); *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 78 (1845).

Cinclus maculatus, *Hodgs. in Gray's Zool. Misc.* p. 83 (1844).

Hydrobata asiatica, *Gray, Gen. B.* i. p. 215 (1846); *Blyth, Cat. B. Mus. As. Soc.* p. 158 (1849); *Horsf. & Moore, Cat. B. E.I. Co. Mus.* i. p. 185 (1854); *Adams, P. Z. S.* 1858, p. 489, 1859, p. 180; *Jerd. B. Ind.* p. 506 (1862); *Blyth, Ibis*, 1866, p. 375; *Stoliczka, Ibis*, 1868, p. 33; *Gray, Hand-l. B.* i. p. 266, no. 3902; *Godwin-Aust. J. A. S. Beng.* xxxix. p. 102 (1870); *Jerd. Ibis*, 1872, p. 133; *Hume & Henders. Lahore to Yark.* p. 188 (1873); *Biddulph, Ibis*, 1881, p. 52; *Scully, t. c.* p. 437.

Cinclus tenuirostris, *Bp. Consp.* i. p. 252 (1850, *ex Gould MSS.*).

Hydrobata sp., *Stoliczka, Ibis*, 1868, p. 33.

*Adult.* General colour above and below light chocolate-brown, a little more sooty brown on the chin and lores and sides of face; the lower abdomen also somewhat more sooty brown in colour; lesser wing-coverts like the back; median and greater coverts, as well as the quills, blackish brown with chocolate-brown margins, a little more ashy on the edges of the primaries; tail dark brown, paler edged at the tips of the feathers; axillaries and under wing-coverts dark chocolate-brown; quills ashy brown below, lighter on the inner webs; "bill black; legs pale brown; soles of the feet yellow; iris dark brown" (*Jerdon*). Total length 7·5 inches, culmen 0·85, wing 3·8, tail 2·25, tarsus 1·15.

Many specimens have a somewhat mottled appearance, the feathers of the upper surface being pale brown at the tips, these light-coloured ends being apparently abraded by age, so that they are often inconspicuous. The under surface does not appear to get mottled, and usually preserves a uniform brown colour.

*Young.* Ashy grey all over, mottled with buffy-white spots, which are subterminal between two blackish bars: the spots on the head smaller and more in the form of stripes; the ear-coverts rather broadly streaked with dull white; wing-coverts tipped with white spots, as also are the primary-coverts; quills dull brown, edged with dull whitish and tipped with the same, rather more plainly on the secondaries; tail-feathers ashy brown, with faint white tips; throat white, mottled with dusky-brown margins to the feathers; under surface of body like the upper, but more broadly mottled with white; the feathers of the abdomen very distinctly tipped with white; under wing-coverts white, with dusky bases.

The Himalayan Dipper breeds in Turkestan, and is found in Afghanistan, and thence throughout the whole of the Himalayas from Cashmere to Bootan and the Khasia Hills. Abbé David concludes that birds of Western China are *C. pallasi*.

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| *a*. Ad. sk. | Himalayas. | India Museum. |
| *b*. Ad. st. | Himalayas. | |
| *c*. Ad. sk. | Assam. | Gould Collection. |
| *d*. Ad. sk. | Bootan (*Pemberton*). | India Museum. |
| *e*. Juv. sk. | Bootan. | Gould Collection. |
| *f*. Ad. sk. | Nepal (*Hodgson*). | Gould Collection. |
| *g*, *h*. Ad. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |
| *i*, *k*. Ad.; *k'*. Juv. sk. | Nepal. | B. H. Hodgson, Esq. [P.]. |

| | | |
|---|---|---|
| *l.* Ad. sk. | Kuamon (*Strachey*). | India Museum. |
| *m.* Ad.; *m'.* Juv. sk. | Cashmere. | R. B. Sharpe, Esq. [P.]. |
| *n, o.* Ad. sk. | Cashmere(*C.H.T.Marshall*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *p.* Juv. sk. | Cashmere. | E. M. Langworthy, Esq. [P.]. |
| *q, r.* Ad.; *s.* Juv. sk. | N.W. Himalayas. | Capt. Stackhouse Pinwill [P.]. |
| *t.* Juv. sk. | Afghanistan (*Griffith*). | India Museum. |
| *u, v.* ♂ ad. sk. | Gilgit, Feb. 1879. | Major J. Biddulph [C.]. |
| *w.* ♂ juv. | Gilgit, April 15, 1879. | Major J. Biddulph [C.]. |
| *x.* Juv. sk. | Gilgit, July 8, 1880. | Major J. Biddulph [C.]. |
| *y.* ♂ juv. sk. | Gilgit, May 16, 1875. | Major J. Biddulph [C.]. |
| *z, a'.* ♂ ♀ ad. sk. | Cashmere, Oct. 1876. | Major J. Biddulph [C.]. |
| *b'.* ♂ juv. sk. | Cashmere, May 21, 1876. | Major J. Biddulph [C.]. |

### 7. Cinclus pallasi.

Sturnus cinclus, var., *Pallas, Zoogr. Rosso-Asiat.* i. p. 426.

Cinclus pallasii, *Temm. Man. d'Orn.* i. p. 177 (1815); *id. Man.* iii. p. 107 (1835); *Werner, Atlas, Insectivores, Suppl.* pl. 113; *Gould, B. Europe,* ii. pl. 85 (1837); *Temm. & Schl. Faun. Japon.* p. 68, tab. xxxi. c (1850); *Bp. Consp.* i. p. 252 (1850); *Gätke, J. f. O.* 1856, p. 71; *Schrenk, Amur-Reise,* p. 331 (1859); *Gould, B. Asia,* part xii. (1860); *Blasius, Ibis,* 1862, p. 66; *Blakist. t. c.* p. 320; *Swinh. Ibis,* 1863, p. 272; *Radde, Reis. Sibir., Vög.* p. 220 (1863); *Salvin, Ibis,* 1867, p. 118; *Swinh. Ibis,* 1875, p. 449; *Tacz. Bull. Soc. Zool. France,* 1876, p. 137; *Hume, Str. F.* 1878, vol. vii. p. 378; *id. Str. F.* 1879, p. 94; *Blakist. & Pryer, Ibis,* 1879, p. 239.

Hydrobata pallasii, *Gray, Gen. B.* i. p. 215; *Middend. Reis. Sibir., Zool.* p. 163 (1851); *Gray, Hand-l. B.* i. p. 267, no. 3908 (1869); *Swinh. P. Z. S.* 1871, p. 368; *David & Oust. Ois. Chine,* 1878, p. 146.

Cinclus marila, *Swinh. Ibis,* 1860, p. 187; *Salv. Ibis,* 1867, p. 119.

Hydrobata marila, *Gray, Hand-l. B.* i. p. 267, no. 3909.

Hydrobata sordida, *Hume & Henders. Lahore to Yark.* p. 189 (*nec Gould*).

*Adult.* General colour above and below deep chocolate-brown, rather blacker on the lower back and rump and down the centre of the belly and under tail-coverts; on the chin and sides of face a faint ashy shade; wing-coverts like the back, the median series blackish, with narrow brown margins; greater coverts and quills dark brown, with ashy-grey edges; upper tail-coverts dark ashy, edged with brown; tail-feathers dark ashy grey; under wing-coverts and axillaries blackish; quills ashy below, lighter towards the base of the inner webs; "bill greenish brown; feet leaden grey; claws grey; iris greyish chestnut" (*David*). Total length 6·5 inches, culmen 0·85, wing 3·8, tail 2·4, tarsus 1·2.

The bird collected by Mr. Maries in the Ichang Gorge is a very much larger bird, darker and richer in all its coloration, and having the chocolate-brown of the back continued over the rump and upper tail-coverts as well as the entire under surface of the body. *C. marila* of Formosa is smaller and rather different in colour, but appears to be only a race of *C. pallasi*.

Pallas's Dipper is found throughout Eastern Siberia, whence it ranges into Kamtschatka and the Aleutian Islands; it also inhabits Japan and the greater part of China, as Abbé David refers the Dippers of Western China to this species and not to *C. asiaticus*. Mr. Hume has lately included the present bird in the list of Indian birds; but I have not found his authority for its occurrence, unless it be that the Dipper from Ladak, identified by him as *C. sordidus* (Lahore to Yark. p. 189), but supposed to be *C. pallasi*, really turns out to be that species.

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| *a*. Imm. sk. | Yokohama (*H. Pryer*). | Edward Hargitt, Esq. [P.]. |
| *b*. Ad. sk. | Japan (*H. Whitely*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *c*. Ad. sk. | Nagasaki, Japan. | Gould Collection. |
| *d*. Ad. sk. | Ichang Gorge, River Yangtze, China. | C. Maries, Esq. [C.]. |
| *e*. Ad. sk. | East Siberia. | Gould Collection. |

### 8. Cinclus sordidus.

Cinclus sordidus, *Gould, P. Z. S.* 1859, p. 494; *id. Birds of Asia*, pt. xii. (1860); *Salvin, Ibis*, 1867, p. 118; *Blanf. J. A. S. Beng.* xli. p. 48; *Hume, Str. F.* 1879, p. 94.

Hydrobata sordida, *Jerd. B. Ind.* i. p. 507 (1863); *Blyth, Ibis*, 1866, p. 374; *Gray, Hand-l. B.* i. p. 267, no. 3904; *Prjev. in Dawson Rowley's Orn. Misc.* ii. p. 202 (1877).

*Adult* (type of species). General colour above nearly uniform blackish slate-colour; crown of head and hind neck, as well as the lores and sides of the head, deep chocolate-brown; wing-coverts dusky slate-colour; quills externally of the latter colour, ashy brown on the inner web; tail-feathers dusky slate-colour; sides of face, throat, and chest light chocolate-brown, paler than the head; remainder of under surface of body brownish black, washed with slaty, more conspicuous on the under tail-coverts and lower flanks; under wing-coverts and axillaries deep brown, like the breast. Total length 6 inches, culmen 0·8, wing 3·25, tail 1·8, tarsus 1·15.

The Sombre Dipper inhabits the mountain-ranges in the extreme northern portions of Cashmere and Ladak. It is also probably found throughout the mountains of Thibet, as it has been discovered by Prjevalski in Kansu and Northern Thibet.

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| *a*. Ad. sk. | Northern Cashmere (*Dr. A. L. Adams*). | John Gould, Esq. (Type of species.) |

### 9. Cinclus mexicanus.

Cinclus pallasi (*nec Temm.*), *Bp. Ann. Lyc. New York*, ii. p. 439 (1826); *id. Amer. Orn.* iii. pl. xvi. fig. 1.

Cinclus mexicanus, *Swains. Phil. Mag.* i. p. 368 (1827); *Scl. P. Z. S.* 1859, p. 362; *id. Cat. Amer. B.* p. 10 (1862); *Baird, Review Amer. B.* p. 60 (1864); *Salvin, Ibis*, 1866, p. 190; *Coues, Pr. Philad. Acad.* 1866, p. 66; *Salvin, Ibis*, 1867, p. 120; *Sumichr. Mem. Bost. Soc.*

i. p. 544 (1869); *Cooper, Orn. Calif.* p. 25, cum fig. (1870); *Coues, Key N. Amer. Birds*, p. 77, fig. 18 (1872); *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *Coues, B. N.-West*, p. 10 (1874).

Hydrobata unicolor, *Gray, Gen. B.* i. p. 215 (1846).

Hydrobata mexicana, *Baird, B. N. Amer.* p. 229 (1860); *Dall & Bann. Trans. Chic. Acad.* i. p. 277 (1869); *Gray, Hand-l. B.* i. p. 267, no. 3906 (1869); *Baird, Brewer, and Ridgw. Hist. N. Amer. B.* p. 56, pl. v. fig. 1 (1874); *Coues, B. Color. Vall.* p. 89 (1878); *Salvin & Godm. Biol. Centr.-Amer., Aves*, i. p. 44 (1879).

Cinclus americanus, *Audub. B. Amer.* pls. 370, 435; *Swains. Faun. Bor.-Amer., Birds*, p. 173 (1831); *Nutt. Man. Orn.* p. 358 (1832); *Audub. Orn. Biogr.* iv. p. 493, v. p. 303 (1839); *id. B. Amer.* p. 182, pl. 137 (1841).

Cinclus unicolor, *Vigors, P. Z. S.* 1830, p. 55; *Bp. Comp. List B. Eur. & N. Amer.* p. 18 (1838); *id. Consp.* i. p. 252.

*Adult male* (west side of Rocky Mountains; J. K. Lord). General colour above leaden grey, a trifle darker on the mantle; crown of head perceptibly darker and inclining to blackish brown; wing-coverts leaden grey like the back, with a nearly obsolete fringe of whitish along the tip of the median and greater series; bastard wing- and primary-coverts blackish brown, the latter slightly washed with leaden grey; quills blackish brown, the primaries narrowly edged, the secondaries broadly washed with leaden grey, like the back, along their outer edges; the inner secondaries narrowly fringed with whitish at the tips; tail blackish brown; sides of face and ear-coverts dusky blackish, like the crown; above and below the eye a spot of white, generally larger above than below, but often indistinct in skins; entire under surface of body leaden brown; the throat not so grey as the rest of the under surface; some of the breast-feathers and plumes of the abdomen with faintly developed hoary whitish margins; under wing-coverts and axillaries like the breast, with more or less distinct whitish tips and margins; quills ashy brown below, greyer along the edge of the inner webs; "bill black; legs dark brown" (*Baird*); legs pinkish white (*Mus. Smiths.*). Total length 6·7 inches, culmen 0·85, wing 3·6, tail 2·05, tarsus 1·15.

*Adult female.* Scarcely to be distinguished from the male, but apparently a little larger; the crown and sides of the head more of a chocolate-brown. Total length 7·5 inches, culmen 0·8, wing 3·75, tail 2·2, tarsus 1·25.

*Young male.* Differs from the adults of both sexes in being of a clearer slaty grey above, the head being also of a slaty grey, hardly at all darker than the back; lores, sides of face, throat, and fore neck dull white, with greyish or brown tips to most of the feathers, producing a slightly mottled appearance; rest of under surface of body slaty grey, obscured by hoary whitish margins to the feathers. Total length 6·4 inches, culmen 0·7, wing 3·7, tail 1·9, tarsus 1·2.

*Obs.* Mexican specimens in the cabinet of Messrs. Salvin and Godman appear to be of precisely the same species as those from North America, though the two examined by me (S. Mexico and

Oaxaca) have blacker bills than the British-Columbian specimens, and have less of the whitish edgings to the under surfaces. This is probably owing to their being shot at a different season of the year.

Autumnal and winter specimens have numerous transverse crescents of whitish on lower parts and wings—these especially conspicuous posteriorly; the secondaries are also conspicuously terminated with a white crescent. Bill brown, paler towards base of lower mandible. In spring and summer the bill is entirely black, and the whitish markings almost entirely disappear; the young bird has a greater amount of white beneath than the adult in winter dress, and this white is disposed in longitudinal, not transverse, suffusions. The colour of the legs appears to be the same at all seasons. (*Baird, Brewer, and Ridgway.*)

The American Dipper is confined to the mountainous regions of North America west of the Mississippi, from Alaska southwards to Western Mexico and Guatemala.

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| *a.* Ad. sk. | Massachusetts. | John Gould, Esq. |
| *b, c.* Ad. sk. | Vancouver Island. | J. K. Lord, Esq. [C.]. |
| *d, e.* Ad. sk. | Sumass, British Columbia. | J. K. Lord, Esq. [C.]. |
| *f,g,h.* ♂ ad.; *i.* ♀ ad. sk. | West side of Rocky Mountains. | J. K. Lord, Esq. [P.]. |
| *k.* ♂ juv. sk. | West side of Rocky Mountains. | J. K. Lord, Esq. [P.]. |
| *l.* Ad. sk. | Mount Shasta, 7000 feet. | Lord Walsingham [P.]. |
| *m.* Ad. sk. | California. | Mr. Bridges [C.]. |

## 10. Cinclus ardesiacus.

Cinclus ardesiacus, *Salvin, Ibis*, 1867, p. 121, pl. ii.; *Lawr. Ann. Lyc. New York*, ix. p. 92 (1869); *v. Frantzius, J. f. O.* 1869, p. 290; *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *Baird, Brewer, and Ridgway, N. Amer. B.* i. p. 56 (1874); *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 45.

Hydrobata ardesiaca, *Gray, Hand-l. B.* i. p. 267, no. 3911 (1869).

*Adult female* (Cordillera de Tolé, Veragua, Arcé: type of species). Above delicate ashy grey; the head a little more dingy, forming an obscure cap; least wing-coverts like the back; the median and greater coverts, as well as the quills, blackish brown, narrowly edged with the same grey as the back; the primaries more narrowly margined than the secondaries, which have a very narrow white fringe at the tip; tail-feathers blackish brown, washed with grey; lores brownish, like the crown; ear-coverts ashy grey, washed with brown on the upper margin; above and below the eye a small spot of white; cheeks and throat light ashy brown, the rest of the under surface delicate ashy grey; under wing- and tail-coverts darker grey, edged with whitish, particularly along the edge of the wing; quills dull ashy below, lighter along the inner web; legs yellowish

in skin; bill dark horn-brown. Total length 4·9 inches, culmen 0·8, wing 3·4, tail 1·6, tarsus 1·2. (*Mus. Salvin and Godman.*)

*Young.* Similar to the adult above, excepting that the greater wing-coverts and quills have whitish tips to them; sides of face and under surface of body creamy white, the sides washed with grey; the under tail-coverts dusky grey, with dull whitish tips; under wing-coverts white; the axillaries dusky grey, with whitish tips. Total length 5·2 inches, culmen 0·7, wing 3, tail 1·6, tarsus 1·15. (*Mus. Salvin and Godman.*)

Salvin's Dipper is found in the high mountains of Guatemala and Costa Rica.

### 11. Cinclus leuconotus.

Cinclus leucocephalus, *Lafr. Rev. Zool.* 1847, p. 68 (*nec Tschudi*).
Cinclus leuconotus, *Sclater, P. Z. S.* 1857, p. 274; *id. Cat. Amer. B.* p. 10, pl. ii. (1862); *Baird, Review Amer. B.* p. 60 (1864); *Salv. Ibis*, 1867, p. 122; *Scl. & Salv. P. Z. S.* 1870, p. 781; *iid. Nomencl. Av. Neotr.* p. 3 (1873); *iid. P. Z. S.* 1879, p. 492.
Hydrobata leuconota, *Gray, Hand-l. B.* i. p. 267, n. 3906.

*Adult male* (Frontino, U.S. Colombia; T. K. Salmon). General colour above black; crown of head white, slightly varied towards the nape with blackish centres, which afford a slightly streaked appearance; interscapulary region pure white: the lateral feathers adjoining the scapulars black externally, white internally, the whole forming a large patch of white in the middle of the back; wings black, the quills a little browner towards the tips; tail black; lores, feathers in front of and round the eye, as well as the ear-coverts, black; the cheeks, sides of face, and under surface of body pure white; the sides of the body black, as well as the under tail-coverts, the latter being tipped with white, as also are the thigh-feathers; the flank-plumes somewhat mottled with white, many of the feathers being longitudinally streaked and tipped with white; under wing-coverts and axillaries black, the latter tipped with white; quills black below, with a broad patch of white on the inner webs, forming a conspicuous band across the wing; "iris dark" (*T. K. Salmon*). Total length 6 inches, culmen 0·65, wing 3·2, tail 1·7, tarsus 1·15. (*Mus. Salvin and Godman.*)

*Adult female* (Frontino, T. K. Salmon). Similar to the male. Total length 6·3 inches, culmen 0·65, wing 3·4, tail 1·75, tarsus 1·1.

Younger birds appear to be a little more dingy, and to have more or less white edgings to the feathers of the lower back and upper tail-coverts, while the size of the white patch on the back is somewhat reduced. This and the amount of blackish stripes on the head are characters which appear to vary greatly in the species, probably with the age of the bird.

The White-backed Dipper inhabits the mountains of Venezuela, Colombia, and Ecuador.

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| *a*, *b*. Ad. sk. | Bogotá. | Purchased. |
| *c*. Juv. sk. | Bogotá. | Purchased. |

### 12. Cinclus leucocephalus.

Cinclus leucocephalus, *Tschudi, Arch. f. Nat.* 1844, p. 279; *Bp. Consp.* i. p. 252 (1850); *Tschudi, Faun. Peruan., Aves*, p. 180, pl. xv. fig. 1 (1855); *Baird, Review Amer. B.* p. 60 (1864); *Salv. Ibis*, 1867, p. 122; *Scl. & Salv. P. Z. S.* 1869, p. 599; *iid. Nomencl. Av. Neotr.* p. 3 (1873); *Tacz. P. Z. S.* 1874, p. 504.

Hydrobata leucocephala, *Gray, Gen. B.* i. p. 215 (1846); *id. Hand-l. B.* i. p. 267, no. 3910 (1869).

*Adult* (Pitumarca, Highlands of Peru; H. Whitely). General colour above sooty black, deeper black on the upper tail-coverts and rump; wings black, browner towards the end of the quills; tail-feathers blackish brown; crown of head white, a few feathers slightly varied with central longitudinal blackish markings; lores and a streak through the eye running above the ear-coverts sooty blackish, the latter slightly washed with ashy, as also are the hind neck and sides of neck; sides of face greyish white, the ear-coverts mingled with sooty black; cheeks, throat, and fore neck white; the rest of the under surface from the upper breast downwards sooty black, washed with ashy on the breast; under wing-coverts sooty brown; quills dark brown below, with a large white patch caused by the white bases to the inner webs of the inner quills. Total length 7 inches, culmen 0·6, wing 3·5, tail 1·9, tarsus 1. (*Mus. Salvin and Godman.*)

*Hab.* Peru.

## Subfamily III. MIMINÆ.

The Mocking-Thrushes of America appear to form a very natural group, representing in the New World the strong-legged Babbling-Thrushes of the Old. Between some of them and the *Crateropi* of the Eastern Hemisphere there is considerable resemblance; but in habits the two groups are very different, for, as is well known, the American Mocking-birds are highly esteemed as songsters, a quality in which the *Timeliidæ* of the Old World are somewhat deficient. Some of the genera of *Mimina*, such as *Cinclocerthia*, *Rhamphocinclus*, and *Rhodinocincla*, appear to connect the Mocking-Thrushes with the Wrens, as does also the genus *Harporhynchus*. Of the relationship of *Melanoptila* with the present subfamily, I am not so well assured, but it apparently finds an ally in the genus *Galeoscoptes*.

### *Key to the Genera.*

*a*. Wing equal to or longer than the tail.
  *a'*. Bill longer than the head.
    *a''*. Nasal aperture a long oval, shut in by a superior and posterior membrane ..... 46. CINCLOCERTHIA, [p. 323.
    *b''*. Nasal aperture round and situated in the anterior part of a very strong membrane which shuts in almost the entire nostril. 47. RHAMPHOCINCLUS, [p. 325.
  *b'*. Bill equal to or longer than the head.
    *c''*. First primary long and broad, more than half the length of the second.
      *a'''*. Wings longer, falling short of the tail by about the length of the tarsus; feet strong and clumsy, the tarsus about equal to the middle toe and claw ..... 48. CICHLHERMINIA, [p. 326.
      *b'''*. Wings shorter, falling short of tail by more than the length of the tarsus; feet slender, the tarsus exceeding the length of the middle toe and claw .. 49. MELANOPTILA, [p. 331.
    *d''*. First primary less than half the length of the second.
      *c'''*. Bill distinctly notched; legs very stout, the tarsus equal in length to the middle toe and claw; wings falling short of tail by about the length of the tarsus ..... 50. NESOCICHLA, [p. 332.
      *d'''*. Bill without a distinct subterminal notch; legs slender, the tarsus much longer than the middle toe and claw; wings falling short of tail by more than length of tarsus..... 51. OREOSCOPTES, [p. 333.
*b*. Tail longer than wing.
  *c'*. First primary long and broad, and falling short of the tip of the second by less than the length of the tarsus; bill shorter than the head; rictal bristles strong..... [p. 335.
    52. GALEOSCOPTES,

*d'*. First primary long and broad, but falling short of the second by more than the length of the tarsus; bill shorter than the head; rictal bristles strong ..... 53. MIMUS, p. 336.

*e'*. First primary long and broad, but falling short of the tip by less than the length of the tarsus; bill long, as long as or longer than the head; rictal bristles moderate.

*e''*. Bill not notched ..... 54. HARPORHYNCHUS,

*f''*. Bill with distinct subterminal notch. [p. 353.

*e'''*. Nostrils exposed, but with the feathers impinging on them, so as to cover the posterior membrane ..... 55. MELANOTIS,

*f'''*. Nostrils exposed, with a bare posterior [p. 362.
membrane ..... 56. DONACOBIUS,

*f*. First primary very long and broad, the distance between its tip and the end of the second primary not only less than the length of the tarsus, but even less than the length of the culmen; rictal bristles feebly developed ..... 57. RHODINOCICHLA, [p. 364. [p. 366.

## 46. CINCLOCERTHIA.

| | Type. |
|---|---|
| Stenorhynchus, *Gould, P. Z. S.* 1835, p. 186 (*nec Meig.* 1823) ..... | C. ruficauda. |
| Cinclocerthia, *Gray, List Gen. B.* 1840, p. 17 ..... | C. ruficauda. |
| Herminierus, *Less. Rev. Zool.* 1843, p. 325 ..... | C. ruficauda. |

Cf. *Scl. & Salv. Ex. Orn.* text to pls. x., xi., xii.

*Range.* West-India Islands: S. Vincent; Martinique; Santa Lucia; Dominica; Guadeloupe; Nevis; Barbuda.

### *Key to the Species.*

*a*. Upper tail-coverts and tail rufous; throat ashy brown; axillaries rufous, like the sides of the body ..... *ruficauda*, p. 323.

*b*. Upper tail-coverts and tail brown; throat white, like centre of abdomen; axillaries light brown ..... *gutturalis*, p. 324.

*c*. Upper tail-coverts and tail ashy brown; throat and abdomen yellowish white; axillaries fawn-colour ..... *macrorhyncha*, p. 325.

### 1. Cinclocerthia ruficauda.

Stenorhynchus ruficaudus, *Gould, P. Z. S.* 1835, p. 186.

Cinclocerthia ruficauda, *Gray, List Gen. B.* 1840, p. 17; *id. Gen. B.* i. p. 134 (1846); *Scl. P. Z. S.* 1855, p. 213; *id. P. Z. S.* 1859, p. 383; *id. Cat. Amer. B.* p. 7 (1862); *id. P. Z. S.* 1866, p. 321; *Gray, Hand-l. B.* i. p. 263, no. 3853 (1869); *Scl. & Salv. Ex. Orn.*

pl. x. (1867); *iid. Nomencl. Av. Neotr.* p. 2 (1873); *Lawr. Proc. U.S. Nat. Mus.* i. pp. 52, 187, 453, 486; *Lister, Ibis*, 1880, p. 39; *Sclater, t. c.* p. 72.

Rhamphocinclus tremulus, *Lafr. Rev. Zool.* 1843, p. 67; *Scl. P. Z. S.* 1855, p. 213.

Herminierus guadelupensis, *Less. Rev. Zool.* 1843, p. 325.

Herminierus infaustus, *Less. t. c.* p. 325.

Thriothorus l'herminieri, *Less. t. c.* p. 326.

Formicarius tremulus, *Gray, Gen. B.* i. p. 211 (1846).

*Adult.* General colour above dark ashy brown on the head and neck; mantle and back dull reddish brown, the rump and upper tail-coverts rufous-brown; tail reddish brown, more rufous on the edges of the feathers; wing-coverts like the back, the median and greater series more rufous, as also the primary-coverts and quills, all these being reddish brown, decidedly more rufous on the outer webs, becoming a little paler towards the ends of the primaries; sides of face ashy brown, the lores, feathers round the eye, and the upper edge of the ear-coverts dark brown; chin and throat whity brown; fore neck and breast light ashy brown, becoming more fulvescent towards the abdomen, which is pale fulvous; sides of body and flanks and under tail-coverts rufous-brown; axillaries and under wing-coverts light rufous-brown, the edge of the wing ashy; quills light brown below, rufescent along the edge of the inner web. Total length 9·5 inches, culmen 1·4, wing 4·1, tail 3·75, tarsus 1·1.

The Rufous-tailed Trembler is confined to the Lesser Antilles, where it is found in the islands of Barbuda, Guadeloupe, Nevis, Dominica, and S. Vincent.

| | | |
|---|---|---|
| *a.* Ad. sk. | Nevis. | W. Cottle, Esq. [P.]. |
| *b.* Ad. st. | Nevis. | W. Cottle, Esq. [P.]. |

### 2. Cinclocerthia gutturalis.

Rhamphocinclus gutturalis, *Lafr. Rev. Zool.* 1843, p. 67.

Formicarius gutturalis, *Gray, Gen. B.* i. p. 211 (1846).

Campylorhynchus gutturalis, *Gray, Gen. B.* iii. *App.* p. 7 (1849).

Cinclocerthia gutturalis, *Sclater, P. Z. S.* 1855, p. 214; *id. P. Z. S.* 1859, p. 338; *id. P. Z. S.* 1866, p. 320; *id. & Salv. Ex. Orn.* p. 23, pl. xii. (1867); *Gray, Hand-l. B.* i. p. 263, no. 3854 (1869); *Scl. & Salv. Nomencl. Av. Neotr.* p. 2 (1873); *Lawr. Proc. U.S. Nat. Mus.* pp. 351, 487 (1879).

*Adult.* General colour above chocolate-brown, slightly more ashy on the head and mantle; median and greater wing-coverts like the back, the greater series narrowly edged with lighter brown; bastard wing-feathers and primary-coverts dark brown, slightly more ashy on the margins; quills dark brown, edged with chocolate-brown, the margins lighter brown; tail-feathers chocolate-brown, edged with paler brown; lores, ear-coverts, and sides of face dusky chocolate-brown, as also the cheeks, the malar line being white with dusky margins; entire throat white; fore neck, chest, and sides of neck ashy brown; middle of the breast and abdomen white;

sides of body and flanks clearer brown; thighs darker brown with whitish margins; under tail-coverts light brown, with fulvous or yellowish-white margins; under wing-coverts and axillaries light brown; quills brown below, slightly rufescent along their inner margins. Total length 10 inches, culmen 1·5, wing 4·3, tail 3·5, tarsus 1·2.

The White-throated Trembler is, as yet, only known from the island of Martinique.

*a*. Ad. sk. Martinique. M. Verreaux.

### 3. Cinclocerthia macrorhyncha.

Cinclocerthia macrorhyncha, *Sclater, P. Z. S.* 1866, p. 320; *id. & Salv. Ex. Orn.* p. 21, pl. xi. (1867); *Gray, Hand-l. B.* i. p. 263, no. 3855; *Scl. P. Z. S.* 1871, p. 268; *Semper, P. Z. S.* 1872, p. 648; *Scl. & Salv. Nomencl. Av. Neotr.* p. 2 (1873).

*Adult* (type of species). General colour above dull ashy brown, slightly clearer brown on the forehead and crown; lesser and median wing-coverts like the back; the greater coverts brown, edged with lighter brown; quills brown, margined with ashy brown; tail-feathers light brown, washed with ashy on their margins; lores, ear-coverts, and sides of face dark brown; malar line whitish with dusky margins; throat, centre of breast, and abdomen yellowish white; fore neck, breast, and sides of neck light ashy brown; sides of body fulvescent brown; thighs darker; under tail-coverts light brown, with fulvous-brown edges to the feathers; under wing-coverts and axillaries fawn-colour; outer wing-coverts darker brown; quills dusky brown below, with fawn-coloured edges along the inner web; "legs dark green; iris yellow" (*Semper*). Total length 9·6 inches, culmen 1·8, wing 4, tail 3·3, tarsus 1·25.

The Great-billed Trembler appears to be confined to the island of Santa Lucia, in the Lesser Antilles.

## 47. RHAMPHOCINCLUS.

| | Type. |
|---|---|
| Ramphocinclus, *Lafr. Rev. Zool.* 1843, p. 66 ..... | R. brachyurus. |
| Legriocinclus, *Less. Descr. Mamm. et Ois.* p. 278 (1847) ..... | R. brachyurus. |
| Cinclops, *Bp. Comptes Rendus*, xxxviii. pp. 1, 64 (1854) | R. brachyurus. |

*Range*. West-India Islands: Martinique and Santa Lucia.

### 1. Rhamphocinclus brachyurus.

Turdus brachyurus, *Vieill. N. Dict. d'Hist. Nat.* xx. p. 255 (1818); *Bonn. et Vieill. Enc. Méth.* ii. p. 655 (1823); *Gray, Gen. B.* i. p. 219 (1847).

Petrodroma mexicanus, *Less. Ann. Sc. Nat.* 2nd ser. ix. p. 168 (1838).

Rhamphocinclus brachyurus, *Lafr. Rev. Zool.* 1843, p. 66; *Sclater, P. Z. S.* 1859, p. 337; *id. Cat. Amer. B.* p. 7 (1862); *id. P. Z. S.* 1871, p. 268; *Semper, P. Z. S.* 1872, p. 648; *Scl. & Salv. Nomencl. Av. Neotr.* p. 2 (1873); *Lawr. Proc. U.S. Nat. Mus.* pp. 352, 486.
Formicarius brachyurus, *Gray, Gen. B.* i. p. 211 (1846).
Legriocinclus mexicanus, *Less. Descr. Mamm. et Ois.* p. 278 (1847).
Campylorhynchus brachyurus, *Gray, Gen. B.* iii. *App.* p. 7 (1849).
Zoothera cinclops, *Bp. Consp.* i. p. 253 (1850).
Cinclops melanoleucus, *Gray.*
Cinclocerthia brachyurus, *Sclater, P. Z. S.* 1855, p. 214; *Gray, Hand-l. B.* i. p. 264, no. 3856 (1869).

*Adult.* General colour above chocolate-brown, the head rather more dusky, and the rump and upper tail-coverts slightly rufescent brown; wing-coverts and quills dark brown, margined with chocolate-brown like the back; tail-feathers dark brown, washed with chocolate-brown on their edges; lores, feathers below the eye, and ear-coverts black, the hinder part of the latter verging into chocolate-brown; cheeks, throat, and breast pure white; the sides of the breast, flanks, and thighs dark chocolate-brown; under tail-coverts chocolate-brown, with broad white margins; under wing-coverts and axillaries dark chocolate, with narrow white shaft-lines and margins to the feathers; quills ashy brown below, with a narrow light edging to the inner web; "legs dark green; iris yellow" (*Semper*); "iris hazel, in some red" (*Ober*). Total length 9·5 inches, culmen 1·15, wing 4·2, tail 3·75, tarsus 1·3. (*Mus. Salvin and Godman.*)

*Young.* Very like the adult, but having the throat and breast dull brown, slightly washed with rufous, the white feathers of the adult being donned by a moult. (*Mus. Salvin and Godman.*)

The White-bellied Trembler is an inhabitant of the West-Indian islands of Santa Lucia and Martinique.

*a.* ♂ ad. sk. Martinique (*Ober*). Smithsonian Institution.

## 48. CICHLHERMINIA.

| | Type. |
|---|---|
| Cichlherminia, *Bp. Comptes Rendus*, xxxviii. p. 2, note (1854) | C. herminieri. |
| Cichlalopia, *Bp. Rev. Zool.* 1857, p. 205 (*nec Bp.* 1854) | C. fuscata. |
| Margarops, *Sclater, P. Z. S.* 1859, p. 335 | C. fuscata. |

*Range.* Confined to the West-India Islands.

### *Key to the Species.*

*a.* Under mandible yellow.
  *a'.* No white tips to the tail-feathers.
    *a''.* No black spots on throat; inner lining of quills rufescent; general colour ruddy brown, with a bronzy gloss on the tail.
      *a'''.* With a distinct shade of orange-rufous on the lower throat and fore neck; inner lining of quills dark rufous; under tail-coverts cream-colour with brown bases; upper mandible horn-brown ..... *herminieri*, p. 327.

*b'''*. Rufous shade on lower throat and fore neck not strongly pronounced; inner lining of quills light rufous; under tail-coverts white with brown bases; upper mandible yellow at tip ..... *sanctæ luciæ*, p. 328.

*b''*. Throat conspicuously spotted with black; under tail-coverts white, edged with brown; inner margin of quills ashy brown; general colour above dark olive-brown, the quills and tail-feathers blackish brown, washed with dark olive-brown ..... *dominicensis*, p. 328.

*b'*. Tail-feathers with a large white spot at the tips.

*c''*. Culmen longer, 1·4 inch; white spot on tail-feathers longer in shape ..... *fuscata*, p. 329.

*d''*. Culmen shorter, 1·2 inch; white spot on tail-feathers quadrate in shape ..... *densirostris*, p. 330.

*b*. No yellow on under mandible, the entire bill being horny black; tail-feathers with a small white spot at the tips ..... *montana*, p. 330.

### 1. Cichlherminia herminieri.

Turdus herminieri, *Lafr. Rev. Zool.* 1844, p. 167; *Gray, Gen. B.* i. p. 219 (1847).

Cichlherminia herminieri, *Bp. C. R.* xxxviii. p. 2; *id. Rev. Zool.* 1857, p. 204.

Cichlherminia bonapartii, *Sclater, P. Z. S.* 1859, p. 335.

Turdus l'herminieri, *Gray, Hand-l. B.* i. p. 259, no. 3788.

Margarops herminieri, *Sclater, P. Z. S.* 1871, p. 268; *Semper, P. Z. S.* 1872, p. 648; *Scl. & Salv. Nomencl. Av. Neotr.* p. 2 (1873); *Lawr. Proc. U.S. Nat. Mus.* i. pp. 52, 351, 452, 485 (1879).

*Adult male.* General colour above russet-brown, the feathers of the crown with obscure dusky margins, the wing-coverts like the back; quills light brown, externally reddish brown, the greater coverts also slightly more reddish brown than the back; tail-feathers reddish brown; lores like the head; ear-coverts russet-brown, narrowly streaked with fulvous shaft-lines, a few of which are also seen on the sides of the crown above the ear-coverts, but not sufficient to form an eyebrow; throat and fore neck sandy buff, the feathers on the former mesially marked with light brown, the fore neck being sandy buff, with brown margins to the feathers; remainder of under surface conspicuously mottled, the feathers having an ovate white centre, with a distinct light-brown edging, before which there is a distinct subterminal shade of darker brown; lower abdomen and vent white; under tail-coverts pale sandy buff or cream-colour, with brown bases, and margined with brown, less distinctly on the longer ones; thighs brown, externally tipped with white; under wing-coverts and axillaries white, rather broadly edged with pale sandy brown; quills brown below, sandy brown along the inner web, forming a conspicuous quill-lining. Total length 9·5 inches, culmen 1·2, wing 5·3, tail 3·6, tarsus 1·7.

Herminier's Mocking-Thrush is confined to the Lesser Antilles, where it inhabits the islands of Martinique, Guadeloupe, St. Vincent, and Santa Lucia.

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| *a*. Ad. sk. | Guadeloupe. | M. Verreaux. |

### 2. Cichlherminia sanctæ luciæ.

Margarops sanctæ luciæ, *Sclater*, *Ibis*, 1880, p. 73.
Margarops herminieri, var. semperi, *Lawr. Bull. U.S. Nat. Mus.* 1880, p. 16.

*Adult*. General colour above ruddy brown, a little darker on the head; wing-coverts like the back; quills dark brown, externally like the back; tail-feathers brown, with a bronzy gloss; lores and base of lower mandible rufous; ear-coverts and sides of face like the back, with fulvous streaks on the former; throat fulvescent, with ruddy-brown streaks; fore neck and breast ruddy brown, all the feathers distinctly centred with buffy white, producing a strongly mottled appearance, which is continued down the sides of the body, where the centres of the feathers are larger and whiter; abdomen and under tail-coverts white, the feathers edged with ruddy brown on the lower breast; the under tail-coverts with ruddy-brown bases; axillaries and under wing-coverts white, with yellowish-brown edges; the coverts near the edge of the wing brown, with whitish spots; quills brown, edged with rufous along the inner web; "feet bright yellow; iris dull green" (*Semper*). Total length 10 inches, culmen 1·15, wing 5·15, tail 3·8, tarsus 1·6. (*Mus. P. L. Sclater.*)

Semper's Mocking-Thrush replaces the foregoing species in the island of Santa Lucia.

### 3. Cichlherminia dominicensis.

Margarops herminieri, *Lawrence*, *Proc. U.S. Nat. Mus.* i. p. 187 (1879, *nec Lafr.*).
Margarops dominicensis, *Lawr. op. cit.* 1880, p. 16.

*Adult male* (Dominica; F. A. Ober). General colour above dark olive-brown, the head rather duller, and having obscure dusky margins to the feathers; wing-coverts like the back; quills dark brown, externally like the back; tail-feathers dark brown, washed on their edges with olive-brown like the back; lores blackish brown; sides of face and ear-coverts russet-brown, the feathers mesially streaked with deep ochraceous buff; a few streaks of ochraceous buff above the ear-coverts on the side of the crown; throat and chest rich ochraceous buff, the feathers broadly edged with fulvous-brown and spotted with black at the ends, these spots being very distinct; remainder of under surface of body white, with fulvous-brown margins, sometimes blackish; the whole breast and abdomen strongly mottled, except on the lower abdomen, which is white, like the under tail-coverts; the longer feathers of the latter margined with olive-brown; thighs olive-brown, tipped with white; under

wing-coverts and axillaries pure white, narrowly edged with dark brown or sandy brown; quills ashy brown below, lighter along the edge of the inner web; "iris tea-colour" (*Ober*). Total length 9 inches, culmen 1·1, wing 4·65, tail 3·1, tarsus 1·65. (*Mus. Salvin & Godman.*)

Ober's Mocking-Thrush replaces the foregoing species in the island of Dominica.

### 4. Cichlherminia fuscata.

Turdus fuscatus, *Vieill. Ois. Amér. sept.* ii. p. 1, pl. 57 bis (1807); *id. N. Dict. d'Hist. Nat.* xx. p. 226 (1816); *Bonn. et Vieill. Enc. Méth.* p. 639 (1823); *Gray, Gen. B.* i. p. 219 (1847); *Bp. Consp.* i. p. 276 (1850); *Gray, Hand-l. B.* i. p. 259, no. 3785.
Colluricincla fusca, *Gould, P. Z. S.* 1836, p. 6.
Mimus fuscatus, *Bp. C. R.* xxxviii. p. 2, note (1854).
Cichlalopia fuscatus, *Bp. Rev. Zool.* 1857, p. 204.
Cichlherminia fuscata, *A. & E. Newt. Ibis*, 1859, p. 335.
Margarops fuscatus, *Sclater, P. Z. S.* 1859, p. 335; *id. Cat. Amer. B.* p. 6 (1862); *Baird, Review Amer. B.* p. 42 (1864); *Scl. & Salv. Nomencl. Av. Neotr.* p. 2 (1873); *Cory, Birds of the Bahamas*, p. 47 (1880).

*Adult* (S. Croix; A. Newton). General colour above dark brown, the feathers edged with lighter brown, producing a mottled appearance, these light edges paler on the rump and upper tail-coverts, the longer of the latter being margined with white; wing-coverts like the back and margined in the same manner, but the edgings are whitish at the tips of the greater and median series; bastard wing and primary-coverts very dark brown; quills dark brown, externally lighter brown, the inner secondaries narrowly edged with white at the tips; tail-feathers brown, margined with lighter brown, all but the two centre feathers having a large white spot at the end of the inner webs, increasing in extent towards the outermost, where it also occupies the end of the outer web also; lores dusky brown, as also the feathers under the fore part of the eye; ear-coverts brown; cheeks streaked with blackish brown and white, the feathers being margined with white arranged in streaks; under surface of body white, the throat distinctly streaked with light brown; fore neck more broadly mottled with light brown, the feathers having a central ovate mark of light brown edged with white, and centred with a dark shaft-streak, the light brown centre having a subterminal shade of darker brown separating it from the white margin; sides of body and flanks similarly coloured; centre of abdomen and under tail-coverts white, the latter with a brown base and an arrow-shaped bar across the middle; axillaries and under wing-coverts light brown, fringed with white and centred with darker brown, very much like the sides of the breast in character of markings; quills ashy brown below, light sandy buff along the inner web; "iris pearly white" (*A. Newton*). Total length 11 inches, culmen 1·4, wing 5·3, tail 4·5, tarsus 1·5.

The White-eyed Mocking-Thrush inhabits the islands of S. Croix

and S. Thomas in the West Indies and extends to Inagua in the Bahamas. Vieillot states that it is found in Porto Rico and S. Domingo; but it has not since been procured in those localities.

| | | |
|---|---|---|
| *a*. Ad.; *b*. ♀ ad. sk. | S. Croix. | Prof. A. Newton [P.]. |
| *c*. ♀ ad. sk. | S. Croix. | M. Verreaux. |
| *d*, *e*. Ad. sk. | S. Thomas. | L. Fraser [C.]. |
| *f*. Ad. sk. | S. Thomas. | Smithsonian Institution. |

### 5. Cichlherminia densirostris.

Turdus densirostris, *Vieill. N. Dict. d'Hist. Nat.* xx. p. 233 (1816); *Bonn. et Vieill. Enc. Méth.* p. 642 (1823); *Lafr. Rev. Zool.* 1844, p. 167; *Gray, Gen. B.* i. p. 219 (1847); *Bp. Consp.* i. p. 271 (1850); *id. Hand-l. B.* i. p. 259, no. 3786 (1869).

Cichlherminia densirostris, *Bp. Comptes Rendus*, xxxviii. p. 2, note (1854).

Margarops densirostris, *Sclater, P. Z. S.* 1859, p. 336; *id. P. Z. S.* 1879, p. 765; *Scl. & Salv. Nomencl. Av. Neotr.* p. 2 (1873); *Lawr. Proc. U.S. Nat. Mus.* i. pp. 233, 351, 453, 486 (1879).

*Adult male.* General colour above dark brown, the feathers edged with lighter brown, producing a mottled appearance; wing-coverts like the back and edged in the same manner, the greater series rather more rufous on their margins; bastard wing and primary-coverts uniform dark brown; quills dark brown, margined with rufous-brown, the inner secondaries tipped with white; tail-feathers dark brown, edged with lighter brown, and having a white tip, increasing gradually in extent towards the outer feathers, where the inner web has an extremely broad spot of white at the end; lores, ear-coverts, sides of face, and sides of neck brown, slightly mottled with darker brown centres; under surface of body white, streaked with brown, the brown centres to the feathers of the throat and breast disposing themselves in the form of broad lines; the breast and sides of the body mottled, being pale brown or whity brown, with a subterminal line of darker brown before the white margin, giving the appearance of arrow-head markings; centre of breast and abdomen white; under tail-coverts white, brown near the base and crossed with a brown bar; under wing-coverts and axillaries exactly like the sides of the breast and mottled in the same manner; quills dark brown below, light fulvous along the inner web; "bill horn-colour; iris very pale straw-colour" (*Ober*). Total length 11 inches, culmen 1·2, wing 5·35, tail 4·3, tarsus 1·3.

The Yellow-eyed Mocking-Thrush is an inhabitant of the Lesser Antilles, where it is found in Antigua, Dominica, Martinique, Guadeloupe, and Montserrat.

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|---|---|---|
| *a*. ♂ ad. sk. | Guadeloupe. | M. Verreaux. |

### 6. Cichlherminia montana.

Turdus montanus, *Lafr. Rev. Zool.* 1844, p. 167; *Gray, Gen. B.* i. p. 219 (1847); *id. Hand-l. B.* i. p. 259, no. 3787 (1869).

Margarops montanus, *Sclater, P. Z. S.* 1869, p. 336; *id. P. Z. S.*

1871, p. 266; *Semper, P. Z. S.* 1872, p. 648; *Scl. & Salv. Nomencl. Av. Neotr.* p. 2 (1873); *Lawr. Proc. U.S. Zool. Mus.* pp. 52, 187, 351, 453, 486 (1879); *Lister, Ibis,* 1880, p. 39.

*Adult.* General colour above uniform dusky brown, the lower rump and upper tail-coverts margined with ashy white; wing-coverts like the back, with paler margins to the median coverts, more distinct on the greater series, the outermost of which are whitish at the tip of the outer web; bastard wing and primary-coverts uniform dark brown; quills dark brown, externally lighter brown, the feathers narrowly edged with whity brown on the extreme margins; tail-feathers dark brown, margined with lighter brown and tipped with white, which increases in extent towards the outer feathers; lores, sides of face, and ear-coverts dusky brown, the cheeks slightly varied with ashy bars; under surface of body ashy whitish, mottled with light brown, the feathers being light brown in colour, margined with white, before which the feather becomes subterminally darker brown; sides of body more uniform brown, the light margins to the feathers less conspicuous; centre of abdomen white; under tail-coverts brown at the base, white at their ends; under wing-coverts and axillaries pale brown, tipped with white and obscurely barred with dusky brown; quills dark brown below, with very pale ashy rufous edges along the inner web; "feet dark green; iris light yellow" (*Semper*). Total length 9·3 inches, culmen 0·9, wing 4·5, tail 3·5, tarsus 1·1.

In some individuals the secondaries are tipped with white, being apparently somewhat young birds.

The Black-billed Mocking-Thrush inhabits the Lesser Antilles, being found in the islands of Dominica, S. Vincent, Martinique, Guadeloupe, and Santa Lucia.

*a.* ♂ ad. sk. Guadeloupe. M. Verreaux.

## 49. MELANOPTILA.

Type.
Melanoptila, *Sclater, P. Z. S.* 1857, p. 275..... M. glabrirostris.

*Range.* Confined to the coast of Honduras.

### 1. Melanoptila glabrirostris.

Melanoptila glabrirostris, *Sclater, P. Z. S.* 1857, p. 275; *id. P. Z. S.* 1859, p. 337; *Scl. & Salv. Ibis,* 1859, p. 7; *Moore, P. Z. S.* 1859, p. 55; *Scl. Cat. Amer. B.* p. 7 (1862); *Salv. Ibis,* 1864, p. 380; *Baird, Review Amer. B.* p. 55 (1864); *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *Salv. & Godm. Biol. Centr.-Amer., Aves,* i. p. 27, tab. iii. fig. 2 (1879).
Turdus glabrirostris, *Gray, Hand-l. B.* i. p. 258, no. 3774 (1869).

*Adult.* General colour above and below purplish black, the lores and feathers at base of lower mandible and base of chin velvety black; scapulars and lesser wing-coverts like the back, the median and greater coverts dark steel-green, slightly edged with purple;

quills blackish, externally steel-green, the secondaries entirely of the latter colour; tail-feathers steel-green, blackish on the inner webs. Total length 8 inches, culmen 0·85, wing 3·7, tail 3·6, tarsus 1·1.

The Blue-black Mocking-Thrush is, as far as is yet known, confined to the coast of Honduras and the coral-islands that skirt the shore. Messrs. Salvin and Godman think that it may possibly occur northwards along the coast of Yucatan, and also eastwards to Cape Gracias à Dios.

| | | |
|---|---|---|
| *a*. Ad. st. | Honduras. | Mr. Dyson [C.]. |
| *b*. Ad. sk. | Honduras. | Mr. Dyson [C.]. |

## 50. NESOCICHLA.

Type.
Nesocichla, *Gould, P. Z. S.* 1855, p. 165..... N. eremita.

*Range.* Confined to the group of Tristan da Cunha.

For all that Mr. Seebohm (Cat. B. v. p. 404) has rejected the present genus from his family *Turdidæ*, I still consider that the place of *Nesocichla* is nearer the Ground-Thrushes (*Geocichla*) than it is to the Mocking-Thrushes. The characters given by Dr. Sclater (Voy. Challenger, p. 111) do not do justice to the genus, for the rictal bristles are much more developed than would appear from the figure of the bill, while the omission of the small first primary destroys the Turdine look of the wing, which thus appears thoroughly Timeliine. I consider *Nesocichla* to be really a Thrush, in old times probably a true *Geocichla*, with at present a modified and rounded wing, induced by its isolated habitat, which has rendered long flight unnecessary.

### 1. Nesocichla eremita.

Nesocichla eremita, *Gould, P. Z. S.* 1855, p. 165; *Sclater, P. Z. S.* 1878, p. 577; *id. Report Voy. H.M.S.* '*Challenger*,' ii. p. 111, pl. xxiii. (1881).
Turdus eremita, *Gray, Hand-l. B.* i. p. 259, no. 3789 (1869).
Turdus guianensis, *Carm. Trans. Linn. Soc.* xii. p. 496.

*Adult* (type of species). General colour above dark sandy brown, faintly mottled with darker-brown centres to the feathers of the mantle and back, the lower back and rump more uniform and slightly tinged with olive; wing-coverts like the back, spotted with tawny buff at the ends; quills dark brown, externally lighter brown, fringed with pale fulvous or tawny buff, especially distinct near the outer base of the primaries; the secondaries tipped with pale tawny or whitish; upper tail-coverts rather lighter than the rump, the outer ones with narrow whitish edgings; tail-feathers brown, washed with ashy olive on the margins of the feathers; lores and nasal plumes, as well as a distinct eyebrow, sandy buff; ear-coverts and cheeks sandy buff, slightly washed with brown,

the feathers in front of and below the eye, as well as at the base of the cheeks, whitish; chin whitish; remainder of under surface of body yellowish buff, thickly mottled with brown centres to the feathers, generally in the form of large triangular spots; abdomen white with brown spots, rather smaller than the breast-spots; flank-feathers with broad dark-brown centres; thighs uniform yellowish buff; under tail-coverts paler buff, sparsely spotted with brown on the tips of some of the feathers; under wing-coverts and axillaries rich golden buff, with a slight central shade of brown on the former; quills ashy brown below, golden buff along the inner web; bill horny black; legs pale; "iris black" (*J. Murray*). Total length 8·3 inches, culmen 1·1, wing 3·8, tail 3·1, tarsus 1·4.

The specimens collected during the voyage of the 'Challenger' do not happen to have the sexes marked; but there can be no doubt that the *female resembles the male*. Young birds appear to have more tawny buff on the wing-coverts, which are distinctly centred as well as tipped with this colour.

The Hermit Mocking-Thrush is confined to the islands of Tristan and Inaccessible, in the Tristan da Cunha group.

| | | |
|---|---|---|
| *a*. Ad. sk. | Tristan da Cunha. | J. Macgillivray, Esq. [C.]. (Type of species.) |
| *b*, *c*, *d*, *e*. Ad. sk. | Tristan da Cunha. | Voy. of H.M.S. 'Challenger.' |
| *f*. Ad. sk. | Tristan da Cunha. | Voy. of H.M.S. 'Challenger.' (Spec. fig. Sclater, *t. c.*) |

## 51. OREOSCOPTES.

Type.

Oreoscoptes, *Baird, B. N. Amer.* p. 347 (1858)..... O. montanus.

*Range*. The Rocky Mountains of the United States, west to the Pacific, south to Cape St. Lucas.

### 1. Oreoscoptes montanus.

Orpheus montanus, *Towns. Journ. Philad. Acad.* 1837, p. 192; *Audub. B. Amer.* ii. p. 194, pl. 139.

Turdus montanus, *Audub. B. Amer.* pl. 369. fig. 1; *id. Orn. Biogr.* iv. p. 487.

Turdus (Orpheus) montanus, *Towns. Journ. Philad. Acad.* 1839, p. 153.

Mimus montanus, *Bp. Comp. List B. Eur. & N. Amer.* p. 17 (1838); *id. Consp.* i. p. 276 (1860); *Gray, Hand-l. B.* i. p. 262, no. 3837 (1869).

Oroscoptes montanus, *Baird, B. N. Amer.* i. p. 347 (1858); *Sclater, Cat. Amer. B.* p. 8 (1862); *Coues, Pr. Philad. Acad.* xviii. p. 65 (1866).

Oreoscoptes montanus, *Sclater, P. Z. S.* 1859, p. 340; *Baird, Review Amer. B.* p. 42 (1864); *Dresser, Ibis*, 1865, p. 482; *Cooper, Orn. Calif.* p. 12 (1870); *Allen, Bull. Mus. Comp. Zool.* iii. p. 174 (1872); *Coues, Key N. Amer. B.* p. 74 (1872); *Ridgw. Bull. Ess. Inst.* v. p. 179 (1873); *Coues, B. N.-West*, p. 7 (1874); *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* i. p. 32 (1874); *Coues, B.*

*Color. Vall.* p. 48 (1878); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 11 (1881).

*Adult.* General colour above light ashy, with nearly obsolete dusky streaks down the centre of the feathers; least wing-coverts like the back; median and greater series dull brown, with margins of ashy white; bastard wing-feathers dark brown, edged with white; primary-coverts brown, narrowly margined with ashy brown; quills brown, edged with ashy brown, with a narrow margin of white at the end of the secondaries, the outer primaries with a white margin in the centre of the outer web near the indentation on the outside of the quill; tail-feathers dark brown, edged narrowly with light brown, the three outermost feathers with a white spot at the tip of the inner web, this white increasing in extent towards the outermost; lores and feathers round the eye white; ear-coverts light brown, as also the sides of the face; under surface of body white, with triangular spots of black, very small on the throat, but increasing in size on the breast and sides of the body; on the chest, flanks, and under tail-coverts a distinct tinge of fulvous, with only a few narrow streaks of brown on the latter; axillaries and under wing-coverts fulvous, edged with white; quills ashy brown, lighter ashy along the edge of the inner web. Total length 8·3 inches, culmen 0·8, wing 3·9, tail 2·6, tarsus 1·25.

This species bears no small resemblance to the young of the common Mocking-bird, which is, like it, spotted below, and for which it might be mistaken upon superficial examination. It is, however, much more heavily and sharply marked with triangular spots on nearly all the underparts, and differs, besides, in its generic characters. The bill is slenderer and comparatively longer; the wings are relatively much longer and more pointed, equalling or exceeding the tail, which is little rounded, the outer feathers being only about ¼ inch shorter than the middle ones. Length about 8 inches, wing 4, tail rather more, tarsus 1·15, bill 0·65. (*Coues, B. N.-West*, p. 7.)

*Young.* Dull brownish above, conspicuously streaked with dusky; the markings below streaky and diffuse.

Specimens differ little with sex or season, or with age after the first streaked stage is passed. The individual variation consists in the purer or more brownish ash of the upper parts, and especially in the shade of the underparts (which ranges from whitish to a decided brownish cinnamon cast) and in the amount of spotting. Ordinarily, the lower belly and vent, and sometimes the throat, are immaculate, but the whole under surface is sometimes pretty uniformly covered. The brownish shade is usually strongest on the breast, flanks, and crissum. The newly-grown quills and tail-feathers are darker than the old ones, and have more white edging. The wing-coverts are sometimes edged as well as tipped with white. (*Coues, l. c.*)

The Sage-Thrasher has only been found in the Rocky-Mountain districts of the United States, extending west to the Pacific and

south to Cape St. Lucas. Birds from the latter locality are rather smaller, according to Prof. Baird.

*a.* Ad. sk. [W. North America *.] Purchased.

## 52. GALEOSCOPTES.

Type.

Galeoscoptes, *Cab. Mus. Hein.* Th. i. p. 82 (1850) .... G. carolinensis.
Felivox, *Bp. Comptes Rendus,* xxxviii. p. 56 (1854) .. G. carolinensis.

*Range.* North America, extending into Central America on migration.

### 1. Galeoscoptes carolinensis.

The Cat Bird, *Catesby, Nat. Hist. Carol.* i. p. 66, pl. 66 (1731–1743).
Muscicapa carolinensis, *Linn. Syst. Nat.* i. p. 328 (1766).
Lucar lividus, *Bartr. Trav. Florida,* 1790, p. 290 bis.
Turdus felivox, *Vieill. Ois. Amér. sept.* ii. p. 10, pl. 67 (1807); *Audub. B. Amer.* pl. 128 (c. 1826); *id. Orn. Biogr.* ii. p. 171, v. p. 440; *Nutt. Man.* i. p. 332 (1832).
Turdus lividus, *Wils. Amer. Orn.* ii. p. 90, pl. 14. fig. 3 (1810).
Turdus carolinensis, *Licht. Verz. Doubl.* p. 38 (1823).
Orpheus felivox, *Swains. Faun. Bor.-Am., Birds,* p. 192 (1831).
Mimus felivox, *Bp. Comp. List B. Eur. & N. Am.* p. 18 (1838); *id. Consp.* i. p. 276 (1850).
Orpheus carolinensis, *Audub. B. Amer.* ii. p. 195, pl. 140 (1841).
Mimus carolinensis, *Gray, Gen. B.* i. p. 221 (1847); *Scl. P. Z. S.* 1856, p. 294; *Baird, B. N. Amer.* p. 346 (1860); *Gray, Hand-l. B.* i. p. 262, no. 3840 (1869); *Coues, Key N.-Amer. B.* p. 74 (1872); *Allen, Bull. Mus. Comp. Zool.* iii. p. 174 (1871); *Maynard, B. Florida,* p. 19 (1872); *Coues, B. N.-West,* p. 8 (1874); *Cory, B. Bahamas,* p. 51 (1880).
Galeoscoptes carolinensis, *Cab. Mus. Hein.* Th. i. p. 82 (1850); *Scl. P. Z. S.* 1859, pp. 362, 370; *Scl. & Salv. Ibis,* 1859, p. 7; *Scl. Cat. Amer. B.* p. 6 (1862); *Baird, Review Amer. B.* p. 54 (1864); *Scl. & Salv. P. Z. S.* 1867, p. 278; *Sumichr. Mem. Bost. Soc. N. H.* i. p. 544 (1869); *Lawr. Ann. Lyc. N. Y.* ix. p. 204 (1869); *Cooper, Orn. Calif.* p. 23 (1870); *Scl. & Salv. P. Z. S.* 1870, p. 836; *iid. Nomencl. Av. Neotr.* p. 2 (1873); *Gundl. Orn. Cub.* p. 19 (1876); *Baird, Brewer, & Ridgw. N. Amer. B.* i. p. 52 (1874); *Merrill, Proc. U.S. Nat. Mus.* i. p. 120 (1878); *Godm. & Salv. Biol. Centr.-Amer., Aves,* i. p. 26 (1879); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 12 (1881).
Felivox carolinensis, *Bp. Comptes Rendus,* xxxviii. p. 56 (1854).
Lucar carolinensis, *Coues, Pr. Philad. Acad.* 1875, p. 349.
Mimus (Galeoscoptes) carolinensis, *Coues, B. Color. Vall.* p. 56 (1878).

*Adult.* General colour above dark slaty grey, a little more dusky on the mantle; wing-coverts like the back, the bastard wing-feathers rather lighter grey; greater and primary-coverts dusky brown, externally slaty grey; quills blackish, externally edged with ashy grey, the secondaries more like the back in colour; tail-feathers

* Said to have been from Mexico.

blackish, margined with slaty grey, the outer feather slightly ashy towards the tip; crown of head blackish, forming a cap, the forehead and feathers over the eye ashy; ear-coverts and sides of face, as well as the entire under surface of body, light slaty grey, paler on the abdomen, the vent slightly tinged with rusty; under tail-coverts chestnut; axillaries light slaty grey; under wing-coverts pale ashy; quills dusky below, ashy brown along the edge of the inner web. Total length 8·25 inches, culmen 0·85, wing 3·6, tail 3·8, tarsus 1·1.

The sexes are alike in plumage.

*Young.* Of a more sooty colour above, with little or no distinction of a black cap, and comparatively paler below, where the colour has a soiled brownish cast. Crissum dull rufous. (*Coues.*)

The American Cat-bird is distributed over North America in summer as far north as Lake Winnipeg, and westwards to the head of the Columbia river and the Cascade mountains; in winter it visits the whole of Central America as far south as Panama, and is also found in the Bahamas and Cuba.

| | | |
|---|---|---|
| *a.* Ad. sk. | Fort Dufferin, Manitoba (*G. Dawson*). | N. A. Boundary Commission. |
| *b.* Ad. sk. | 49th Parallel (*G. Dawson*). | N. A. Boundary Commission. |
| *c, d, e.* Ad. sk. | Michigan. | Prof. J. B. Steere [P.]. |
| *f.* Ad. sk. | Washington Heights, Illinois. | H. K. Coale, Esq. [P.]. |
| *g, h.* ♂ ♀ ad. sk. | West side of Rocky Mountains. | J. K. Lord, Esq. [P.]. |
| *i, k.* Ad. st. | North America. | |

## 53. MIMUS.

| | Type. |
|---|---|
| Mimus, *Boie, Isis*, 1826, p. 972 | M. polyglottus. |
| Orpheus, *Swains. Zool. Journ.* iii. p. 167 (1828) | M. polyglottus. |
| Mimetes, *Gloger, Handb. Naturg.* p. 303 (1842) | M. polyglottus. |
| Calandria, *DesMurs.* | |
| Leucomimus, *Bryant, Proc. Bost. Soc. Nat. Hist.* xi. p. 68 (1866) | M. polyglottus. |
| Skotiomimus, *Bryant, t. c.* p. 68 (1866) | M. polyglottus. |

*Range.* The greater part of North America, excepting the extreme north, and the whole of Central and Southern America, as well as the West-Indian islands, the Lesser Antilles and the Galapagos archipelago.

*Key to the Species.*

*a.* Outer tail-feather entirely white.
  *a'.* Penultimate tail-feather white, blackish along the outer web.
    *a''.* White at the base of primaries very distinct, and extended on the inner primaries so as to occupy more than two thirds of the feather ..... *polyglottus*, p. 338

*b''*. White at base of primaries almost imperceptible, the feathers almost entirely dark brown ..... *elegans*, p. 339.
*b'*. Penultimate tail-feather entirely white .... *orpheus*, p. 340.
*b*. Three outer tail-feathers entirely white.
*c''*. Larger: primary-coverts entirely pure white; entire upper surface rusty brown, contrasting with the wings, which are blackish, excepting for the narrow white tips to the coverts and the white at the base of quills and tips of the secondaries. *dorsalis*, p. 341.
*d''*. Smaller: primary-coverts white, with the terminal third black; wings with a broad white band extending down them, composed of the median and greater wing-coverts and the central secondaries, some of which are entirely white ..... *triurus*, p. 342.
*c*. Outer tail-feather brown or blackish, broadly tipped with white.
*c'*. Flanks distinctly streaked or spotted with dusky brown*.
*e''*. Ear-coverts whitish, with a streak of blackish brown, more or less pronounced along the upper margin.
*a'''*. A distinct moustache of blackish spots.
*a*⁴. Chest ashy or whitish, without black bars.
*a*⁵. Primary-coverts white, with the extreme bases black, forming a conspicuous wing-patch ..... *longicaudatus*, p. 342.
*b*⁵. Primary-coverts black, edged with white.
*a*⁶. Larger; wing 4·85 inches, culmen 1·1 inch: upper surface light brown, distinctly striped with darker brown; the white tips to the tail-feathers well defined on both webs ..... *hillii*, p. 343.
*b*⁶. Smaller; wing 4·6 inches, culmen 1 inch: upper surface dark brown, uniform on the back; the white tips to the tail-feathers oblique ..... *bahamensis*, p. 344. / *thenca*, p. 345.
*b*⁴. Chest white, barred with blackish brown or crossed by a broad band of the latter colour ..... *trifasciatus*, p. 346.
*b*. Without any dark moustache.
*c*⁴. Upper surface bluish grey, uniform excepting for a few dark streaks on the head ..... *lividus*, p. 346.
*d*⁴. Upper surface dark brown.
*c*⁵. Upper surface distinctly streaked

* On *M. gilvus* there are often slight streaks to be seen, but so slight as to be noticeable with difficulty, and I consider that its place is better with the unstriped section of the genus.

with blackish brown; lower back and rump washed with rusty; streaks on flanks very narrow .. *modulator*, p. 347.

*d'*. Upper surface obscurely streaked with dusky brown; lower back and rump scarcely lighter than mantle; streaks on flanks very distinct, and more fulvous below than *M. modulator* ..... *saturninus*, p. 348.

*f''*. Ear-coverts entirely black ..... { *melanotis*, p. 349. *parvulus*, p. 350.

*d'*. Flanks uniform, not distinctly spotted or streaked.

*g''*. Underneath white, slightly washed with fulvous on the flanks; upper surface grey; primary-coverts black, with a very narrow white margin..... *gilvus*, p. 350.

*h''*. Underneath reddish, the breast ashy brown; upper surface dull ashy brown, the rump and lower back washed with rusty ..... *patagonicus*, p. 352.

## 1. Mimus polyglottus.

The Mock Bird, *Catesby, Nat. Hist. Carol.* p. 27, pl. 27 (1731).
Le Grand Moqueur, *Briss. Orn.* ii. p. 266 (1760).
Turdus polyglottus, *Linn. Syst. Nat.* i. p. 293 (1766); *Wils. Am. Orn.* ii. p. 13, pl. 10. fig. 1 (1810); *Aubub. B. Amer.* pl. 21; *id. Orn. Biogr.* i. p. 108 (1831); *Less. Traité d'Orn.* p. 410 (1831).
Mimus polyglottus, *Boie, Isis*, 1826, p. 972; *Bp. Comp. List B. Eur. & N. Amer.* p. 17 (1838); *Gray, Gen. B.* i. p. 221 (1847); *Bp. Consp.* i. p. 276 (1850); *Sclater, P. Z. S.* 1856, p. 212; *id. P. Z. S.* 1857, p. 212; *Neuwied, J. f. O.* 1858, p. 179; *Baird, B. N. Amer.* p. 344 (1858); *Scl. P. Z. S.* 1859, p. 340; *id. Cat. Amer. B.* p. 8 (1862); *Baird, Review Amer. B.* p. 48 (1864); *Dresser, Ibis*, 1865, p. 481; *Sumichr. Mem. Bost. Soc. N. H.* i. p. 543 (1869); *Gray, Hand-l. B.* i. p. 261, no. 3815 (1869); *Cooper, Orn. Calif.* p. 21 (1870); *Allen, Bull. Mus. Comp. Zool.* ii. p. 259 (1871); *Coues, Key N. Amer. B.* p. 74 (1872); *Grayson, Pr. Bost. Soc. Nat. Hist.* xiv. p. 277 (1872); *Maynard, B. Florida*, p. 76 (1872); *Allen, Bull. Mus. Comp. Zool.* iii. p. 134 (1872); *Coues, B. N.-West*, p. 8 (1874); *Baird, Brewer, & Ridgw. N. Amer. B.* i. p. 49, pl. iii. fig. 4 (1874); *Coues, B. Color. Vall.* p. 54 (1878); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 11 (1881).
Orpheus polyglottus, *Swains. Zool. Journ.* iii. p. 167 (1828); *Audub. B. Amer.* ii. p. 187, pl. 138 (1847).
Orpheus leucopterus, *Vigors in Beechey's Voy. 'Blossom,'* p. 18 (1839).
Mimetes polyglottus, *Gloger, Handb. Naturg.* p. 303 (1844).
Mimus leucopterus, *Baird, in Stansb. Rep.* p. 328 (1852).
Mimus caudatus, *Baird, B. N. Amer.* 1858, p. 345; *Xantus, Pr. Philad. Acad.* xi. p. 191 (1859).
Mimus polyglottus, var. caudatus, *Coues, Ibis*, 1865, p. 159.
Oroscoptes montanus, *Coues, Ibis*, 1865, p. 159 (*lapsu*).

*Adult.* General colour above light ashy brown, the lesser wing-coverts like the back; greater and median coverts dark brown,

edged with ashy and tipped with spots of ashy white; bastard wing-feathers black, tipped with white; primary-coverts white with black shaft-lines; quills blackish, narrowly edged with brown and tipped with white, the primaries white at the base with black shafts, increasing in extent on the outer secondaries, which are white, blackish at the ends, which are tipped with white, the innermost secondaries dark brown, tipped with white and broadly edged with ashy brown; tail-feathers blackish, narrowly tipped with pale ashy brown, increasing in extent towards the outer feathers, the outermost entirely white, the penultimate one white, excepting the outer web which is blackish; the third feather blackish, with a large wedge-shaped mark of white on the inner web; lores dusky, with a whitish streak above them, slightly indicated above the eye; eyelid white; ear-coverts ashy brown, mottled with white below the eye; cheeks dull white, mottled with dusky tips to the feathers; throat and abdomen white, the fore neck and sides of body light ashy brown, the lower abdomen, vent, and under tail-coverts tinged with light ochraceous buff; thighs white; axillaries white, slightly washed with ashy brown; under wing-coverts white, with dusky brown bases; quills dark brown below, white towards the base of the inner web. Total length 10 inches, culmen 0·9, wing 4·45, tail 4·9, tarsus 1·2.

The American Mocking-Thrush is found in North America up to 40° N. lat., ranging into Mexico and Central America in winter.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | North America. | |
| *c*, *d*. Ad. sk. | North America. | |
| *e*. Ad. sk. | North America. | Purchased. |
| *f*. Ad. sk. | Mexico. | Purchased. |

## 2. Mimus elegans.

Mimus polyglottus (var. bahamensis?), *Bryant, Bost. Journ. N. Hist.* xi. p. 68 (1866).
Mimus dominicus, *Gray, Hand-l. B.* i. p. 262, no. 3826 (1869, *nec L.*).
Mimus orpheus, var. dominicus, *Cory, B. Bahama Isl.* p. 48 (1880).

*Adult*. General colour above light ashy grey, the least wing-coverts like the back; median and greater coverts dark brown, edged with ashy and tipped with white; primary-coverts white, with a large subterminal spot of blackish near the tip; quills blackish, externally margined with ashy grey, the primaries with a concealed white spot at their base, the inner secondaries tipped with white; quills dark brown, edged with ashy, the outermost feather entirely white, the penultimate feather for the most part white, blackish brown along the inner web and toward the end of the outer web, the third feather with a large white wedge-shaped mark near the end; a line at the base of the forehead white, extending above the eye, where it forms a faint eyebrow; eyelid white; in front of the eye a dusky blackish spot; ear-coverts light ashy brown,

mottled with whitish below the eye; cheeks whitish, slightly mottled with dusky tips; under surface of body white, with a very faint ashy shade on the fore neck and sides of breast, the flank-feathers washed with fulvous-brown; thighs brown externally, white on their inner aspect; axillaries and under wing-coverts whitish, slightly washed with ashy brown; quills dusky brown below, white at the base of the inner web; "bill black, legs brownish" (*Cory*). Total length 8·5 inches, culmen 0·8, wing 3·95, tail 4, tarsus 1·15.

Bryant's Mocking-Thrush represents *M. orpheus* in the Bahamas, where it is found, as far as is known at present, on the island of Inagua.

*a*. Ad. sk. Inagua, Bahama Islands. Dr. Henry Bryant [P.].

### 3. Mimus orpheus.

Lesser Mock-Bird, *Edwards, Nat. Hist. B.* ii. pl. 78.
Le Moqueur, *Briss. Orn.* ii. p. 262 (1760).
Turdus orpheus, *Linn. Syst. Nat.* i. p. 293 (1766); *Vieill. Ois. Amér. sept.* ii. p. 12, pl. 68 (1807).
Mimus orpheus, *Gray, Gen. B.* i. p. 221 (1847); *Bp. Consp.* i. p. 276 (1850); *Sclater, P. Z. S.* 1859, p. 341; *id. Cat. Amer. B.* p. 9 (1862); *March, Pr. Philad. Acad.* 1863, p. 290; *Baird, Review Amer. B.* p. 50 (1864); *Gray, Hand-l. B.* i. p. 261, no. 3816 (1869); *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873).
Mimus polyglottus, *Gosse, B. Jamaica*, p. 144 (1847); *Hill, Proc. Philad. Acad.* 1863, p. 304.
Mimus polyglottus, var. portoricensis, *Bryant, Proc. Bost. Soc. N. H.* x. p. 68 (1866).
Mimus polyglottus, var. cubanensis, *Bryant, t. c.* p. 68.

*Adult male.* General colour above dark ashy brown, the lesser wing-coverts like the back: median and greater coverts blackish, edged with ashy brown and tipped with white, forming a double band across the wing; bastard wing-feathers blackish, tipped with white; primary-coverts white, with narrow blackish shaft-lines; quills blackish, externally edged with ashy brown, the primaries white at the base, extending more on the outer secondaries, the innermost blackish brown margined with ashy brown; tail-feathers blackish, tipped with white, less on the centre ones, the two outer ones entirely white, the third white excepting for a broad edging of blackish brown near the tip of its outer web; lores and base of forehead white; in front of the eye a dusky spot; a faint whitish eyebrow; eyelid white; ear-coverts light ashy brown, mottled with white below the eye; cheeks and under surface of body pure white, slightly washed with ashy brown on the sides of the breast and sides of chest; axillaries and under wing-coverts white; quills blackish below, white towards the base of the inner web. Total length 9 inches, culmen 0·8, wing 4·3, tail 4·75, tarsus 1·2.

The *adult female* resembles the old male.

The Jamaican Mocking-Thrush is common in Jamaica. It also

occurs in Porto Rico; and specimens from San Domingo * are apparently not to be separated specifically.

| | | |
|---|---|---|
| *a*. Ad. st. | Jamaica. | Purchased. |
| *b*. Ad. st. | Jamaica. | Zoological Society. |
| *c*. Ad. sk. | Jamaica. | Zoological Society. |
| *d*. ♂ ad. sk. | Moneague, Jamaica, February 1865. | Dr. Henry Bryant [P.]. |
| *e*. Ad. sk. | S. Domingo. | Zoological Society. |

### 4. Mimus dorsalis.

Orpheus dorsalis, *Lafr. et D'Orb. Mag. de Zool.* 1837, p. 18; *D'Orb. Voy. Amér. mérid.* p. 211, pl. 11. fig. 2.

Mimus dorsalis, *Gray, Gen. B.* i. p. 220 (1847); *Bp. Consp.* i. p. 277 (1850); *Sclater, P. Z. S.* 1859, p. 341; *id. Cat. Amer. B.* p. 9 (1862); *Gray, Hand-l. B.* i. p. 262, no. 3824 (1869); *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *iid. P. Z. S.* 1879, p. 592.

*Adult.* General colour above rusty brown, brighter rusty colour on the rump and upper tail-coverts; head a little duller brown than the back, and having dusky-brown centres to the feathers of the head and mantle, nowhere very distinctly indicated; wing-coverts blackish brown, with ashy margins, the median and greater series being tipped with white; bastard wing-feathers blackish, margined with white; primary-coverts white; quills blackish, the secondaries tipped with white, and narrowly margined with white near the ends of some of the median secondaries, the inner ones edged with rusty brown; the primaries and secondaries white at the base, forming with the primary-coverts a large wing-patch; tail with the three outer feathers entirely white, the next one white, with a long patch of blackish brown near the end of both webs, the next one blackish brown, with a whity-brown tip, and the centre feathers entirely blackish brown; lores dusky blackish; eyelid and a broad eyebrow white; cheeks, side of face, and ear-coverts white, slightly mottled with dusky-brown tips to some of the feathers; throat and under surface of body white, slightly washed with creamy buff on the breast and sides of the body; axillaries and under wing-coverts pure white; quills blackish below, white at the base; "bill and feet black; iris pale greenish" (*D'Orbigny*). Total length 10·25 inches, culmen 1·1, wing 4·8, tail 4·75, tarsus 1·45.

The Rusty-backed Mocking-Thrush is an inhabitant of the highlands of Bolivia.

| | | |
|---|---|---|
| *a*. Ad. sk. | Bolivia (*Bridges*). | Eyton Collection. |
| *b*, *c*. Ad. sk. | Bolivia. | Mr. Brydges [C.]. |

* MIMUS DOMINICUS.

Le Merle de S. Domingue, *Briss. Orn.* ii. p. 284, pl. 27. fig. 1 (1760).

Turdus dominicus, *Linn. S. N.* i. p. 295 (1766).

Merle cendré de S. Domingue, *D'Aubent. Pl. Enl.* iv. pl. 558. fig. 1.

Turdus merle, *Müll. S. N.*, Anhang, p. 139 (1766); *Cass. Proc. Philad. Acad.* 1864, p. 249.

Mimus dominicus, *Gray, Gen. B.* i. p. 221 (1847); *Bp. Consp.* i. p. 276 (1853); *Sallé, P. Z. S.* 1857, p. 232; *Sclater, P. Z. S.* 1859, p. 341; *Gray, Hand-l. B.* i. p. 262, no. 3826.

### 5. Mimus triurus.

Tres Colas, *Azara, Apunt.* ii. p. 237 (1805).
Turdus triurus, *Vieill. N. Dict. d'Hist. Nat.* xx. p. 275 (1818); *Bonn. et Vieill. Ene. Méth.* ii. p. 668 (1823).
Orpheus tricaudatus, *Lafr. et D'Orb. Mag. de Zool.* 1837, p. 18; *D'Orb. Voy. Amér. mérid.* p. 208.
Mimus tricaudatus, *Bridges, P. Z. S.* 1843, p. 120.
Mimus triurus, *Hartl. Ind. Azara,* p. 15 (1847); *Gray, Gen. B.* i. p. 221 (1847); *Bp. Consp.* i. p. 277 (1850); *Scl. P. Z. S.* 1859, p. 341; *id. Cat. Amer. B.* p. 9 (1862); *Gray, Hand-l. B.* i. p. 261, no. 3818 (1869); *Pelz. Orn. Bras.* p. 94 (1871); *Hudson, P. Z. S.* 1872, p. 539; *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *iid. P. Z. S.* 1879, p. 592.

*Adult.* General colour above dark ashy brown on the head and mantle, the scapulars washed with rusty, the lower back, rump, and upper tail-coverts being entirely light rusty brown, the upper tail-coverts darker brown, tinged with rusty; wing-coverts black, margined with pure white, the outer ones of the median and greater series almost entirely white, forming a large wing-patch; bastard wing-feathers blackish brown; primary-coverts blackish brown with white bases; quills blackish, edged with lighter brown, the secondaries margined and tipped with white, which occupies the greater part of most of the secondaries, with a broad patch of brown near the end of the outer web; the innermost brown, edged with light ashy brown; four centre tail-feathers dark brown, the next brown, with a large wedge-shaped mark of white near the end, the next white, with a large black mark along the outer web and near the tip of the inner one; the two outer feathers entirely white, with more or less black on the shaft; feathers of the crown with narrow darker brown centres, imparting a somewhat striped appearance; over the eye a distinct stripe of white, broadening out behind; lores and a broad stripe along the upper part of the ear-coverts blackish brown; sides of face and ear-coverts dull white, slightly shaded with ashy, and with slight indications of dusky tips to some of the feathers; throat and centre of abdomen white, the fore neck and chest light ashy, the flanks tinged with light tawny, paler on the under tail-coverts; thighs white; axillaries and under wing-coverts pure white; under surface of quills black. Total length 9 inches, culmen 0·8, wing 3·9, tail 4·1, tarsus 1·25.

The White-banded Mocking-Thrush is found in Patagonia, Chili, and Bolivia, ranging into Southern Brazil.

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|---|---|---|
| *a.* Ad. sk. | Chili. | Zoological Society. |
| *b.* Ad. sk. | Chili. | Mr. Bridges [C.]. |
| *c, d.* Ad. sk. | Bolivia. | Mr. Bridges [C.]. |

### 6. Mimus longicaudatus.

Mimus longicaudatus, *Tschudi, Arch. f. Naturg.* 1844, p. 280; *Gray, Gen. B.* i. p. 221 (1847); *Tschudi, Faun. Peruan.* p. 190, pl. 15. fig. 2 (1855); *Scl. P. Z. S.* 1859, p. 345; *id. P. Z. S.* 1866, p. 96; *Gray,*

*Hand-l. B.* i. p. 262, no. 3832 (1869); *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1874); *Tacz. P. Z. S.* 1874, p. 504, 1877, p. 749, 1880, p. 190.
Mimus peruvianus, *Peale, U.S. Expl. Exped.* p. 87.
Mimus thilius (*nec Mol.*), *Gray, Gen. B.* i. p. 221 (1847); *Bp. Consp.* i. p. 276 (1850); *Gray, Hand-l. B.* i. p. 262, no. 3833.
Mimus leucospilus, *Pelz. Sitz. Akad. Wien*, xxxi. p. 324 (1858); *Scl. P. Z. S.* 1859, p. 344; *Gray, Hand-l. B.* i. p. 262, no. 3822 (1869).
Mimus nigriloris, *Lawr. Ann. Lyc. N. Y.* x. p. 137 (1871) *.

*Adult.* General colour above light ashy brown, with dark centres to the feathers of the head and mantle, producing a mottled appearance; the lower back, rump, and upper tail-coverts uniform; lesser wing-coverts like the back, or brown edged with the same colour as the back; median and greater coverts brown, margined with ashy and narrowly tipped with whitish; bastard wing-feathers dark brown or blackish; primary-coverts white, the basal half brown, forming a wing-patch with the adjoining base of the primaries; quills dark brown, edged with ashy, the primaries margined with whitish, and the secondaries tipped with whitish also; tail-feathers brown, shaded strongly with ashy grey, and tipped with whity brown, the four outer feathers with a large spot of white near the end of the inner web; a broad white eyebrow; lores and a broad streak along the upper edge of the ear-coverts dark brown; cheeks and ear-coverts ashy whitish, with a few dusky tips to some of the feathers; throat white, separated from the cheeks by a broad moustachial line of black, ending in a series of large black spots down the sides of the neck, which are white; fore neck, breast, and sides of body light ashy brown, the latter streaked with blackish brown; thighs and under tail-coverts creamy white, the latter with light-brown bases; under wing-coverts and axillaries very pale brown, edged with white; quills ashy brown below, edged with ashy white along the outer web. Total length 11·5 inches, culmen 1·2, wing 5, tail 5·6, tarsus 1·6.

The Long-tailed Mocking-Thrush is found from Ecuador to Peru, ranging perhaps into Northern Chili. Birds from Puna Island are remarkable for their clear grey coloration, blacker lores and ear-streak, and broader white tips to the wing-coverts. (*Mus. P. L. S., and Salv. & Godm.*)

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|---|---|---|
| *a.* Ad. sk. | [Chili.] | M. Verreaux. |
| *b, c.* Ad. sk. | St.-Helena Bay, Ecuador. | Sir W. Burnett and Admiral Fitzroy [P.]. |

### 7. Mimus hillii.

Mimus hillii, *March, Proc. Philad. Acad.* 1863, p. 291; *Baird, Review Amer. B.* p. 52 (1864); *Gray, Hand-l. B.* i. p. 262, no. 3830 (1869); *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873).
Mimus orpheus, *Hill, Proc. Philad. Acad.* 1863, p. 304 (*nec L.*).

*Adult male.* General colour above brown, streaked with dusky

* The locality "Mexico" is doubtless erroneous.

brown down the centres of the feathers, these streaks less distinct on the rump, which is slightly shaded with ashy; wing-coverts brown, edged with light ashy, the median and greater series dark brown, edged with ashy and tipped with white, forming a double bar across the wing; wing-coverts dark brown, edged with whitish; quills dark brown, the primaries margined with whitish, the secondaries with ashy; tail-feathers dark brown, paler at the tips and slightly shaded with ashy, all but the centre ones whitish at the tip of the inner web, this forming a large spot on the four outermost feathers; eyelid and a distinct streak above the eye from the base of the forehead white; lores dusky blackish; sides of face and cheeks white, as well as the sides of the neck, the whole of these parts distinctly spotted with dusky-brown tips to the feathers, very distinctly indicated on the moustachial line and sides of the throat; sides of neck shaded with ashy; ear-coverts washed with light brown on the upper and hinder edge; under surface of body white, the sides broadly streaked with brown; under tail-coverts white, with pale-brown bases; thighs white, the hinder parts mottled with brown bases to the feathers; axillaries and under wing-coverts very light fulvous, edged with white and having dusky centres to the feathers; quills dusky brown, edged with ashy along the inner web; "bill ebony-black; tarsus and toes blue-black" (*Hill*). Total length 10·5 inches, culmen 1·1, wing 4·85, tail 5·3, tarsus 1·5.

*Adult female.* Similar in plumage to the male. Total length 9·75 inches, culmen 1·1, wing 5, tail 5·4, tarsus 1·4.

Hill's Mocking-Thrush is an inhabitant of Jamaica.

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| *a*. ♂ ad. sk. | Salt-pond, Jamaica, Feb. 4, 1865. | Dr. H. Bryant [P.]. |
| *b*, *c*. ♂ ♀ ad. sk. | Jamaica, March. | F. A. B. Vinen, Esq. [P.]. |

### Subsp. *a*. **Mimus bahamensis.**

Mimus bahamensis, *Bryant*, *Proc. Bost. Soc. N. Hist.* vii. p. 114 (1859); *Baird*, *Review Amer. B.* p. 52 (1864); *Gray*, *Hand-l. B.* i. p. 262, no. 3836 (1869); *Cory*, *B. Bahama Isl.* p. 48 (1880).

Scotiomimus bahamensis, *Bryant*, *Proc. Bost. Soc. N. H.* xi. p. 68 (1866).

Very similar to *M. hillii* of Jamaica, but having much smaller white tips to the tail-feathers. Total length 10·5 inches, culmen 1·1, wing 4·6, tail 5·25, tarsus 1·5. (*Mus. P. L. Sclater.*)

The Bahama Mocking-Thrush represents *M. hillii* in the Bahamas, and is scarcely to be distinguished from that species. *M. gundlachii* * appears also to be the same bird; but I have never been able to see a Cuban specimen.

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* Mimus gundlachii.

Mimus gundlachii, *Cab. J. f. O.* 1855, p. 470; *Sclater*, *P. Z. S.* 1859, p. 342; *Baird*, *Review Amer. B.* p. 59 (1864); *Gray*, *Hand-l. B.* i. p. 262, no. 3831 (1869).

*Hab.* Cuba.

### 8. Mimus thenca.

Turdus thenca, *Molina, Saggio St. Chil.* p. 213 (1810).
Turdus thema, *Vieill. N. Dict. d'Hist. Nat.* xx. p. 297 (1818).
Turdus theuca, *Bonn. et Vieill. Enc. Méth.* ii. p. 678 (1823).
Orpheus thenca, *D'Orb. Voy. Amér. mérid.* p. 209.
Mimus thenca, *Gray in Darw. Voy. Beagle, Birds*, p. 61 (1841); *Fraser, P. Z. S.* 1843, p. 111; *Cab. Mus. Hein.* Th. i. p. 83 (1850); *Sclater, P. Z. S.* 1859, p. 344; *id. Cat. Amer. B.* p. 10 (1862); *id. P. Z. S.* 1867, pp. 320, 337; *Gray, Hand-l. B.* i. p. 262, no. 3823 (1869); *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *Sharpe, P. Z. S.* 1881, p. 7.
Mimus thenka, *Gray, Gen. B.* i. p. 221 (1847); *Bp. Consp.* i. p. 276 (1850).

*Adult.* General colour above brown, the head and mantle strongly mottled with darker brown centres to the feathers, imparting also a slightly streaked appearance; least wing-coverts like the back; median and greater coverts deep brown, tipped with white, forming a double bar across the wing; near the edge of the wing a white spot; bastard wing-feathers and primary-coverts very dark brown, edged with a narrow margin of lighter brown and tipped with white; quills dark brown, margined with lighter brown, the primaries edged and the secondaries tipped with white; tail-feathers dark brown, barred with dusky under certain lights, edged with ashy whitish, the four outer tail-feathers broadly tipped with white, increasing in extent towards the outermost, which is also white along the outer web; a broad line of creamy white from the base of the forehead, forming an eyebrow, which widens out above the ear-coverts; eyelid whitish; lores dusky blackish; sides of face dull white, slightly mottled with brown tips to the feathers, the upper margin of the ear-coverts dark brown; cheeks creamy white; throat white, separated from the cheeks by a distinct moustachial line of black spots, which are very plain on the sides of the lower throat; fore neck, breast, and sides of body light isabelline-brown, the sides streaked with blackish brown, much more broadly on the flanks; thighs whitish, slightly mottled with brown bases to the feathers; axillaries and under wing-coverts white, the former tinged with isabelline, all mesially streaked with dark brown; quills dusky brown below, light ashy along the edge of the inner web. Total length 10 inches, culmen 1, wing 4·6, tail 5·1, tarsus 1·55.

A female collected by Dr. Coppinger is like the supposed males in colour, and measures—Total length 10 inches, culmen 0·9, wing 4·4, tail 4·75, tarsus 1·4.

The Chilian Mocking-Thrush is confined to Chili west of the Cordillera.

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|---|---|---|
| *a, b.* Ad. sk. | Valparaiso. | Sir W. Burnett and Admiral Fitzroy [P.]. |
| *c, d.* Ad. sk. | Valparaiso. | Capt. Lord Byron [P.]. |
| *e, f.* Ad. st. | Valparaiso. | Charles Darwin, Esq. [C.]. |
| *g.* ♀ ad. sk. | Coquimbo, July 1879. | Dr. Coppinger [P.]. |

### 9. Mimus trifasciatus.

Orpheus trifasciatus, *Gould, P. Z. S.* 1837, p. 27.
Mimus trifasciatus, *Gray in Darw. Voy. 'Beagle,' Birds,* p. 62, pl. 16 (1841); *id. Gen. B.* i. p. 221 (1847); *Bp. Consp.* i. p. 277 (1850); *Sclater, P. Z. S.* 1859, p. 345; *Gray, Hand-l. B.* i. p. 262, no. 3827 (1869); *Sund. P. Z. S.* 1871, p. 127; *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *Salv. Trans. Z. S.* ix. p. 471 (1876).

*Adult.* General colour above blackish brown, the feathers mottled with obsolete ashy margins on the back, a little plainer on the head, the lower back, and rump, the latter ashy brown, mottled with dark-brown centres to the feathers; least wing-coverts blackish brown, edged with ashy whitish; median and greater series blackish, tipped with white and margined with ashy brown; bastard wing-feathers and primary-coverts blackish brown, edged with ashy brown and narrowly tipped with white; quills blackish brown, the secondaries margined with pale reddish brown and tipped with white, the primaries margined with ashy whitish; upper tail-coverts light brown, with ashy-whitish margins; tail-feathers dark brown, all but the centre ones lighter brown at the tip, the outer ones whitish at the end of either web; lores dusky blackish; over the eye a distinct white stripe; sides of face and ear-coverts whitish, mottled below the eye and on the fore part of the ear-coverts with dusky blackish tips to the feathers; cheeks and throat and fore neck white, with a slight moustache of dusky blackish; remainder of under surface of body white, the sides spotted with blackish brown in the form of longitudinal drops; across the chest a band of blackish-brown feathers tipped with white; thighs brown, some of the inner feathers tipped with white; under tail-coverts white, with dusky bases; under wing-coverts and axillaries dark brown, edged with dull white; quills dusky brown, with ashy-fulvous margins to the inner web. Total length 9·5 inches, culmen 1·3, wing 5, tail 4·2, tarsus 1·7.

The second specimen in the Museum has the chest-band much less developed than in the one described, it being composed of blackish-brown bars instead of forming a broad band across.

The Three-banded Mocking-Thrush is confined to the Galapagos Archipelago, where as yet it has only been met with on Charles Island.

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|---|---|---|---|
| *a.* Ad. sk. | Charles Island, Galapagos (*C. Darwin*). | Zoological Society. (Type of species.) |
| *b.* Ad. sk. | Galapagos. | |

### 10. Mimus lividus.

Turdus lividus, *Licht. Verz. Doubl.* p. 39 (1823).
Turdus orpheus, *Spix, Av. Bras.* i. p. 71, pl. 71 (1824, *nec L.*).
Mimus lividus, *Neuwied, Beitr. Naturg. Bras.* iii. p. 653; *Gray, Gen. B.* i. p. 221 (1847); *Bp. Consp.* i. p. 276 (1850); *Cab. Mus. Hein.* i. p. 82 (1850); *Burm. Th. Bras.* iii. p. 128; *Sclater, P. Z. S.* 1859, p. 342; *id. Cat. Amer. B.* p. 9 (1862); *Gray, Hand-l. B.* i. p. 262,

no. 3831 (1869); *Pelz. Orn. Bras.* p. 95 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873).

*Adult.* General colour above bluish ash-colour, some of the feathers with darker centres, especially on the head; least wing-coverts like the back, or blackish; median and greater coverts blackish, edged with ashy and tipped with whitish; bastard wing-feathers and primary-coverts black, tipped with ashy white; quills blackish, edged with light ashy brown, whitish on the outer webs of the primaries and at the tips of the secondaries; centre tail-feathers blackish brown, edged with ashy, paler at the tips, the four outer tail-feathers paler brown towards the end of the outer web, the inner one with a large white spot at the end; a broad eyebrow of ashy white from the base of the forehead to above the ear-coverts; lores and a broad streak on the upper ear-coverts light ashy; eyelid white; sides of face and ear-coverts white, faintly varied with dusky margins to the feathers; throat and abdomen white, as also the thighs and the under tail-coverts; the fore neck, chest, and sides of body ashy in shade; the flanks broadly streaked with blackish longitudinal stripes; axillaries and under wing-coverts white, with dusky-brown bases; quills dark brown, edged with ashy whitish along the inner web; "bill and feet black; iris clear reddish brown" (*Prince Max. of Neuwied*). Total length 9·75 inches, culmen 1, wing 4·25, tail 4·5, tarsus 1·3. (*Mus. Salvin and Godman.*)

The Blue-grey Mocking-Thrush inhabits Eastern Brazil.

*a.* Ad. sk. [Upper Amazons.] M. Verreaux.

### 11. Mimus modulator.

Calandria, *Azara, Apunt.* ii. p. 231 (1802).
Orpheus modulator, *Gould, P. Z. S.* 1836, p. 6.
Orpheus calandria, *Lafr. et D'Orb. Mag. de Zool.* 1837, p. 17; *D'Orb. Voy. Amér. mérid.* p. 206, pl. 10. fig. 2 (1844).
Mimus orpheus, *Gray in Darwin, Voy. 'Beagle,'* p. 60 (1841).
Mimus calandria, *Gray, Gen. B.* i. p. 221 (1847); *Hartl. Ind. Azara,* p. 15 (1847); *Bp. Consp.* i. p. 277 (1850); *Burm. Th. Bras.* iii. p. 127 (1856); *Sclater, P. Z. S.* 1859, p. 343; *Burm. Reis. La Plata St.* ii. p. 475 (1861); *Sclater, Cat. Amer. B.* p. 10 (1862); *Gray, Hand-l. B.* i. p. 261, no. 3819 (1869); *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873).
Mimus modulator, *Sclater, P. Z. S.* 1859, p. 343; *id. Cat. Amer. B.* p. 10 (1862); *Gray, Hand-l. B.* i. p. 261, no. 3820 (1869).

*Adult.* General colour above dark brown, mottled on the head and mantle with ashy brown margins to the feathers; lower back, rump, and upper tail-coverts washed with rusty brown, and more uniform in tint; least wing-coverts dark brown, margined with ashy, the median and greater coverts dark brown, tipped with ashy white, forming a double bar across the wing; bastard wing-feathers and primary-coverts blackish brown, edged with white; quills dark brown, margined with ashy, the secondaries with rusty brown, the primaries edged with hoary white in the centre of the quills; centre

tail-feathers entirely dark brown, the next dark brown, somewhat lighter at the tip, the four outer feathers dark brown, broadly tipped with white on the inner web, the outer web whity brown at the end, the outermost feather edged with white along the outer web; eyebrow broad and white; sides of face also white, faintly washed with brown, the lores and a broad stripe along the upper ear-coverts blackish brown; sides of neck dark brown, slightly washed with ashy grey; under surface of body white, with a slight wash of ashy on the fore neck and breast; sides of the body washed with rusty brown, rather brighter on the under tail-coverts, the sides of the body and flanks distinctly streaked with dark brown, the under tail-coverts scarcely streaked at all; thighs ashy brown; axillaries and under wing-coverts pale fulvous brown, the edge of the wing whitish; quills dusky brown below, ashy along the edge of the inner web. Total length 9·75 inches, culmen 0·95, wing 4·4, tail 4·8, tarsus 1·35.

The specimens from Uruguay and Parana are decidedly larger than those from Bolivia, measuring 4·6–4·8 in the wing. Mr. Alan Peel gives the beak, legs, and iris as "black."

The Paraguayan Mocking-Thrush occurs throughout Southern Brazil, and extends to Bolivia, but is here rather smaller, and apparently constitutes a distinct race.

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|---|---|---|
| *a*. Ad. sk. | Monte Video (*C. Darwin*). | Zoological Society. |
| *b*, *c*. Ad. sk. | Bolivia. | Mr. Bridges [C.]. |
| *d*. Ad. sk. | Maldonado (*C. Darwin*). | Zoological Society. |
| *e*. Ad. st. | Maldonado. | Sir W. Burnett and Admiral Fitzroy [P.]. |
| *f*. Ad. sk. | Paysandu, Buenos Ayres, Aug. 1877. | Henry Durnford, Esq. [C.]. |
| *g*, *h*. ♀ ad. sk. | Uruguay. | Alan Peel, Esq. [C.]. |

### 12. **Mimus saturninus.**

Turdus saturninus, *Licht. Verz. Doubl.* p. 39 (1823).
Mimus saturninus, *Neuwied, Beitr. Naturg. Bras.* iii. p. 658; *Cab. Mus. Hein.* Th. i. p. 83 (1850); *Burm. Th. Bras.* iii. p. 127; *Scl. P. Z. S.* 1859, p. 344; *id. Cat. Amer. B.* p. 62 (1862); *Pelz. Orn. Bras.* p. 95 (1871).

*Adult.* General colour above rusty brown on the head, lower back, rump, and upper tail-coverts, the latter uniform, but the head slightly mottled with dark-brown centres to the feathers; the feathers of the mantle and upper back dark brown, edged with ashy brown, producing a slightly mottled appearance; least wing-coverts like the back, the median and greater series dark brown, margined with pale rusty and tipped with ashy whitish; bastard wing-feathers and primary-coverts dark brown, broadly edged with ashy white; quills dark brown, narrowly tipped with whitish, the secondaries margined with rusty brown, the primaries with ashy whitish; four centre tail-feathers dark brown, slightly paler at the tip, the four outer feathers dark brown with a broad white tip to the inner web,

the outer web being pale brown, the external feather margined with white along the outer edge; a broad eyebrow of creamy white; lores and a broad streak along the top of the ear-coverts blackish; ear-coverts creamy buff, mottled slightly with dusky-brown tips to the feathers; cheeks and throat uniform creamy buff, as also the centre of the breast and abdomen, the under tail-coverts a little deeper in tint; the fore neck and breast washed with ashy fulvous; flanks deepening into fulvous brown and broadly streaked with dark brown; axillaries and under wing-coverts ashy fulvous, with narrow centres of dark brown; quills dusky brown below, ashy along the inner web; "bill blackish brown, the lower mandible reddish horn-grey; feet blackish brown, the soles greyish yellow; iris citron-yellow." (*Neuwied.*) Total length 10 inches, culmen 1, wing 4·3, tail 4·9, tarsus 1·3. (*Mus. Salvin & Godman.*)

The Side-striped Mocking-Thrush is an inhabitant of Brazil.

*a.* Ad. sk. Brazil. M. Claussen [P.].

### 13. Mimus melanotis.

Orpheus melanotis, *Gould, P. Z. S.* 1837, p. 27.
Mimus melanotis, *Gray in Darw. Voy. Beagle, Birds*, p. 62, pl. 17 (1841); *Sclater, P. Z. S.* 1859, p. 345; *Gray, Hand-l. B.* i. p. 262, no. 3828; *Sclater, P. Z. S.* 1870, p. 323; *Sundev. P. Z. S.* 1871, pp. 124, 126; *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *Salv. Trans. Z. S.* ix. p. 471 (1876).

*Adult male.* General colour above dark brown; the head blackish, with the feathers narrowly margined with ashy; the hind neck light ashy, mottled with dark-brown spots on the feathers; mantle dark brown, the feathers edged with ashy, producing a mottled appearance, less distinct on the lower back and rump, which are washed with ochraceous buff; upper tail-coverts lighter ashy brown; wing-coverts blackish brown, edged broadly with dull white, the median and greater series, bastard wing and primary-coverts margined with pale brown and broadly tipped with white; quills blackish brown, edged with paler and more fulvescent brown, more distinct on the secondaries, which are tipped with dull whitish, the primaries margined with white in the middle of the outer web; tail-feathers dark brown, edged with paler brown, all but the centre feathers tipped with white on the inner web, this increasing in extent towards the outer feathers, on the outermost of which it occupies also the end of the outer web as well; eyelid and a rather narrow eyebrow white; lores and ear-coverts, as well as the feathers below the eye, black; sides of neck white; cheeks and entire under surface of body white, with a creamy shade on the fore neck and breast, the flanks tinged with a wash of isabelline and broadly streaked with blackish brown; thighs brown, edged with ashy whitish; under tail-coverts white; axillaries and under wing-coverts ashy whitish, with a pale fulvous tinge, the edge of the wing white, mottled with dark brown; quills dark brown below,

ashy along the inner web; iris yellow. Total length 8 inches, culmen 1·05, wing 4·25, tail 4, tarsus 1·35.

The Black-eared Mocking-Thrush is peculiar to the Galapagos archipelago, where it inhabits the islands of Chatham, Charles, James, and Indefatigable.

| | | |
|---|---|---|
| *a*. Ad. sk. | Galapagos (*C. Darwin*). | Zoological Society. (Type of species.) |
| *b*. Ad. sk. | Galapagos. | |
| *c*. ♂ ad. sk. | | Dr. A. Habel [C.]. |

### 14. Mimus parvulus.

Orpheus parvulus, *Gould, P. Z. S.* 1837, p. 27.

Mimus parvulus, *Gray in Darw. Voy. 'Beagle,' Birds*, p. 63, pl. 18 (1841); *id. Gen. B.* i. p. 221 (1847); *Bp. Consp.* i. p. 277 (1850); *Sel. P. Z. S.* 1859, p. 345; *Gray, Hand-l. B.* i. p. 262, no. 3829; *Sundev. P. Z. S.* 1871, p. 127; *Sel. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *Salv. Tr. Z. S.* ix. p. 472 (1876); *Sharpe, P. Z. S.* 1877, p. 65.

*Adult* (type of species). Similar in plumage to *M. melanotis*, but smaller: "bill and feet obscure nut-brown, the former marked with a pale spot at base of lower mandible" (*Darwin*). Total length 8 inches, culmen 0·8, wing 3·8, tail 3·75, tarsus 1·3.

*Young*. Much greyer than the adult, and the head varied with ashy-brown margins to the feathers; the hinder neck is conspicuously lighter, the white sides converging and forming a half-collar; the rufous rump very distinctly indicated, the upper tail-coverts being also shaded with rufous, all the feathers mottled and having brown centres; wing-feathers dark brown, all broadly tipped with white, these tips somewhat shaded with rufous on the inner secondaries and greater coverts; tail-feathers dark brown, edged with grey, the feathers all shading off into a white tip, broader on the inner web, the outer feather externally edged with whitish; lores and ear-coverts dark brown, slightly shaded with grey; a very distinct white eyebrow; cheeks and under surface of body pure white, the fore neck and breast distinctly spotted with triangular marks of brown. Total length 8·4 inches, culmen 0·9, wing 3·95, tail 4, tarsus 1·3.

The Small Galapagoan Mocking-Thrush is apparently confined to Albemarle Island in the Galapagos archipelago.

| | | |
|---|---|---|
| *a*. Ad. sk. | Albemarle Island, Galapagos (*C. Darwin*). | Zoological Society. (Type of *M. parvulus*.) |
| *b*. Juv. sk. | Albemarle Island. | Dr. A. Habel [C.]. |

### 15. Mimus gilvus.

Turdus gilvus, *Vieill. Ois. Amér. sept.* ii. p. 15, pl. 68 bis (1807); *id. N. Dict. d'Hist. Nat.* xx. p. 296 (1818); *Bonn. et Vieill. Enc. Méth.* ii. p. 677 (1823).

Mimus gilvus, *Jard. Ann. & Mag. Nat. Hist.* xx. p. 329 (1847); *Gray, Gen. B.* i. p. 221 (1847); *Bp. Consp.* i. p. 276 (1850); *Sclater, P. Z. S.* 1859, p. 342; *id. Cat. Amer. B.* p. 9 (1862); *Gray*,

*Hand-l. B.* i. p. 261, no. 3817 (1869); *Pelz. Orn. Bras.* p. 95 (1871); *Scl. P. Z. S.* 1871, p. 268; *Semper, P. Z. S.* 1872, p. 648; *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *Lawr. Bull. U.S. Nat. Mus.* no. 4, p. 12; *Scl. & Salv. P. Z. S.* 1879, p. 492; *Lawr. Proc. U.S. Nat. Mus.* i. pp. 187, 268, 278, 486 (1878); *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 36 (1879).

Mimus melanopterus, *Lawr. Ann. Lyc. N. Y.* v. p. 35, pl. 2 (1849); *Sclater, P. Z. S.* 1859, p. 342; *id. Cat. Amer. B.* p. 9 (1862); *Scl. & Salv. P. Z. S.* 1868, p. 166; *Gray, Hand-l. B.* i. p. 261, no. 3834; *Finsch, P. Z. S.* 1870, p. 553.

Mimus columbianus, *Cab. Mus. Hein.* Th. i. p. 82 (1850).

Mimus gracilis, *Cab. Mus. Hein.* Th. i. p. 83, note; *Sclater, P. Z. S.* 1859, p. 343; *id. & Salv. Ibis*, 1859, p. 7; *Cab. J. f. O.* 1860, p. 410; *G. C. Taylor, Ibis*, 1860, p. 110; *Owen, Ibis*, 1861, p. 60; *Sclater, Cat. Amer. B.* p. 9 (1862); *Baird, Review Amer. B.* p. 54 (1864); *Salvin, Ibis*, 1866, p. 202; *Lawr. Ann. Lyc. N. Y.* ix. p. 91 (1868); *v. Frantz. J. f. O.* 1869, p. 290; *Gray, Hand-l. B.* i. p. 262, no. 3835 (1869).

*Adult male.* General colour above light ashy brown, with slight indications of dusky centres on the feathers of the crown, the mantle a little more dusky than the lower back and rump; lesser wing-coverts like the back; median and greater coverts dark brown, edged with ashy brown, tipped with dull white, forming a double wing-bar; bastard wing-feathers and primary-coverts blackish, with a slight tip of ashy white; quills dark brown, externally light ashy, more hoary in the middle of the primaries and towards the end of the secondaries; primaries with a tiny concealed white spot at the extreme base; tail-feathers blackish brown, all but the centre feathers tipped with white, which increases towards the outermost, where the white extends along the upper web; a tolerably broad white eyebrow; lores blackish, with ashy tips to the feathers; sides of face and ear-coverts ashy whitish, faintly mottled with dusky tips, producing a slightly barred appearance, the upper margin of the ear-coverts dusky brown; throat and under surface of body generally dull white, with a shade of ashy pervading the lower throat, breast, and flanks; the lower flanks slightly streaked with blackish; axillaries and under wing-coverts whitish, with distinct blackish-brown centres to the feathers; quills dusky brown below, ashy along the edge of the inner web. Total length 10·5 inches, culmen 0·95, wing 4·4, tail 4·9, tarsus 1·3.

*Adult female.* Exactly like the male in plumage.

*Young.* More brown than the adults, with dusky-brown centres to the feathers of the upper surface; below white, with dull brown spots on the fore neck and sides of body. (*Mus. Salvin and Godman.*)

Two specimens from Santa Martha, in the collection of Messrs. Salvin and Godman, have the under surface whiter than in birds from other localities.

The Graceful Mocking-Thrush is found in Central America, in the isthmus of Tehuantepec and Northern Yucatan, all over Guatemala as far as Comayagua. It reoccurs in Colombia, and extends

through Venezuela to Guiana, inhabiting also the islands of Trinidad, Tobago, S. Vincent, Grenada, and Santa Lucia. Specimens from these various districts vary somewhat; but I follow Messrs. Salvin and Godman in uniting them under the specific heading of *M. gilvus*.

| | | |
|---|---|---|
| *a*. Ad. st. | S. America. | Zoological Society. |
| *b*. Ad. st. | British Guiana (*Schomburgk*). | Zoological Society. |
| *c*. Ad. sk. | Venezuela. | M. Verreaux. |
| *d*. Ad. sk. | Tobago (*Kirk*). | Sir W. Jardine. |

### 16. Mimus patagonicus.

Orpheus patagonicus, *Lafr. et d'Orb. Mag. de Zool.* 1836, p. 19; *D'Orb. Voy. Amér. mérid.* p. 210, pl. 2. fig. 2.

Mimus patagonicus, *Gray in Darwin, Voy. 'Beagle,' Birds*, p. 60 (1841); *id. Gen. B.* i. p. 221 (1847); *Bp. Consp.* i. p. 277 (1850); *Sclater, P. Z. S.* 1859, p. 344; *Gray, Hand-l. B.* i. p. 262, no. 3825 1869).

Mimus patachonicus, *Hudson, P. Z. S.* 1872, p. 538; *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873).

*Adult.* General colour above dark ashy brown, the lower back, rump, and upper tail-coverts washed with rusty brown, the latter somewhat more ashy; least wing-coverts ashy brown; median and greater series dark brown or blackish, tipped with white, forming a double band across the wing; bastard wing-feathers and primary-coverts black, broadly tipped with white; quills blackish, narrowly tipped with white, the primaries edged with white about the middle of the feathers, the secondaries more broadly margined with rusty brown, and the white tips also broader; tail-feathers blackish, the two centre ones not tipped with white, but all the others with a distinct ending of white, which increases in extent towards the outermost, which is also white along the outer web; over the eye a tolerably broad line of white; lores blackish; sides of face whitish, with dusky tips to some of the feathers; the ear-coverts rufous-brown, with the upper edge dusky brown, forming a streak; throat white, separated from the cheeks by a faintly indicated moustache of dusky brown; lower throat, fore neck, and breast ashy brown, with greyish-white margins to the feathers; sides of body light rufescent brown, with whitish edges to the feathers, producing a somewhat barred appearance; centre of abdomen, thighs, and under tail-coverts creamy white; under wing-coverts and axillaries pale brown with white margins, the edge of the wing pure white; quills dusky brown below, ashy along the inner web; "eyes olive-green" (*W. H. Hudson*). Total length 8·5 inches, culmen 0·8, wing 3·9, tail 3·8, tarsus 1·3.

The Patagonian Mocking-bird is apparently confined to Patagonia.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | Santa Cruz (*C. Darwin*). | Zoological Society. (Types of species.) |
| *c*. Ad. sk. | East Patagonia. | Sir W. Burnett and Admiral Fitzroy [P.]. |
| *d*. Ad. sk. | Rio Negro, Patagonia. | W. H. Hudson, Esq. [C.]. |

## 54. HARPORHYNCHUS.

Type.

Toxostoma, *Wagler*, *Isis*, 1831, p. 528 (*nec Rafin.* 1815) ..... H. curvirostris.
Harpes, *Gambel*, *Proc. Acad. Philad.* ii. p. 264 (1845, *nec Goldf.* 1839) ..... H. redivivus.
Harporhynchus, *Cab. Arch. f. Naturg.* 1848, Bd. i. p. 98 ..... H. redivivus.
Methriopterus, *Reichenb. Syst. Av.* pl. 55. fig. 5 (1850).
Antimimus, *Sundev. Av. Meth. Tent.* p. 13 (1872) .... H. rufus.

Cf. *Coues, Am. Nat.* vii. pp. 326–331 ; *id. B. Color. Vall.* pp. 60–75.

*Range.* All over the United States, from Lake Winnipeg southwards to Mexico and Socorro Island. The genus reaches its greatest development in the South-western United States, where a large proportion of the species are found.

*Key to the Species.*

*a.* Breast spotted.
*a'.* Spots on breast black, very distinct.
*a''.* Under tail-coverts uniform buff, without brown bases or central markings.
*a'''.* General colour above bright rufous, as also the tail, which has paler and more fulvous ends to the feathers ..... *rufus*, p. 353.
*b'''.* General colour ashy brown, as also the tail, the two outermost feathers of which have a large white spot at the end of the inner web ..... *cinereus*, p. 355. / *bendirii*, p. 356.
*b''.* Under tail-coverts mottled with brown central markings or dark bases.
*c'''.* Upper surface rufous ; no white tips to the tail-feathers; spots on breast triangular ..... *longirostris*, p. 356.
*d'''.* Upper surface ashy brown; tail-feathers narrowly tipped with white; spots on breast rounded..... *ocellatus*, p. 357.
*b'.* Spots on breast ashy brown ; under tail-coverts uniform ; tail-feathers broadly tipped with white..... *curvirostris*, p. 358. / *palmeri*, p. 359.
*b.* Breast uniform, without any spots.
*c'.* Vent and under tail-coverts light ochraceous.
*c''.* Flanks uniform ..... *redivivus*, p. 360. / *lecontii*, p. 361.
*d''.* Flanks striped with brown..... *graysoni*, p. 361.
*d'.* Vent and under tail-coverts deep chestnut .. *crissalis*, p. 361.

### 1. Harporhynchus rufus.

The Fox-coloured Thrush, *Catesby*, *Nat. Hist. Carol.* i. p. 28, pl. 28 (1731).
La Grive de la Caroline, *Briss. Orn.* ii. p. 223 (1760).
Turdus rufus, *Linn. Syst. Nat.* i. p. 293 (1766); *Vieill. Ois. Amér. sept.* ii. pl. lix. (1802); *Audub. B. Amer.* pl. cxvi. ; *id. Orn. Biogr.* ii. p. 102 (1834) ; *Gätke*, *Naum.* 1856, p. 71, *et* 1858, p. 424 ; *Dubois, Ois. d'Eur.* p. 51, pl. 51 (1862).

La Grive de la Caroline, appelée Le Moqueur, *D'Aub. Pl. Enl.* iv. pl. 645.
Orpheus rufus, *Swains. Faun. Bor.-Am., Birds*, p. 189 (1831); *Audub. B. Amer.* 8vo, iii. p. 9, pl. 141 (1839).
Orphea rufa, *Gould, P. Z. S.* 1834, p. 15.
Mimus rufus, *Bp. Comp. List B. Eur. & N. Amer.* p. 18 (1838)*; *Gray, Gen. B.* i. p. 221 (1847); *Neuwied, J. f. O.* 1858, p. 180; *Gray, Hand-l. B.* i. p. 263, no. 3851 (1869)
Toxostoma rufum, *Cab. Arch. f. Naturg.* 1847, Bd. i. p. 207.
Toxostoma rufus, *Bp. Consp.* i. p. 277 (1850).
Harporhynchus rufus, *Cab. Mus. Hein.* Th. i. p. 82 (1850); *Baird, B. N. Amer.* p. 353 (1858); *Sclater, P. Z. S.* 1859, p. 340; *id. Cat. Amer. B.* p. 8 (1862); *Baird, Review Amer. B.* p. 44 (1864); *Allen, Bull. Mus. Comp. Zool.* iii. p. 173 (1872); *Coues, Key N. Amer. B.* p. 75 (1872); *Mayn. B. Florida*, p. 21 (1872); *Coues, Am. Nat.* vii. p. 326, fig. 65 (1873); *id. B. N.-West*, p. 9 (1874); *Baird, Brewer, & Ridgw. Hist. N. Amer. B.* i. p. 37 (1874); *Hensh. Zool. Expl. W. 100th Mer.* p. 154 (1876); *Coues, B. Color. Vall.* p. 61 (1878); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 12 (1881).
Harporhynchus rufus, var. longicauda, *Baird, B. N. Amer.* p. 353 (1858); *Ridgw. Bull. Essex Inst.* v. p. 179 (1873); *Baird, Brewer, & Ridgw. Hist. N. Am. B.* i. p. 36 (1874).
Harporhynchus longicauda, *Steph. U. S. Geol. Surv. Terr.* 1870, 1871, p. 464.
Toxostoma rufa, *Bruhin, Zool. Gart.* 1871, p. 15.
Antimimus rufus, *Sundev. Av. Meth. Tent.* p. 13 (1872).

*Adult.* General colour above bright rufous or bay, duller on the head and mantle, the frontal feathers rather more ashy brown; wing-coverts like the back, the median and greater coverts tipped with ochraceous buff, before which is a narrow subterminal bar of black; bastard wing-feathers dull reddish brown, edged with white; primary-coverts rufous, with dusky tips; quills dusky brown, externally bright rufous, the secondaries not so bright and more like the back, with very narrow pale fulvous tips; tail-feathers rufous, the outer ones paler and inclining to fulvous at their tips; lores ashy fulvous, with a line of ashy feathers at the base of the forehead, slightly mottled with tiny dark-brown centres; feathers below the eye dull whitish; ear-coverts dark brown, mottled with white bases to the feathers; cheeks and throat white, the latter tinged with ochraceous buff, and separated from the cheeks by a moustachial line of dark-brown spots; fore neck and under surface of body light ochraceous buff, whiter on the abdomen, which is unspotted; the fore neck and sides of body ornamented with triangular spots of brown, more longitudinal on the flanks, and scarcely visible on the thighs and under tail-coverts, which are rather richer ochraceous buff; the spots on the sides of the neck larger and more rufous; axillaries and under wing-coverts uniform ochraceous buff, the edge of the wing whiter; quills dark brown below, rufous along the inner

* For additional references to the present species, *cf.* Coues, B. Color. Vall. p. 61.

web. Total length 10·25 inches, culmen 1·05, wing 4·2, tail 5·2, tarsus 1·4.

The *adult female* is like the male in plumage.

In the nesting-season the spots at the tips of the wing-coverts become much abraded, as do also the feathers of the face, which becomes more ashy grey. *Young birds* resemble the adult, but are more dingily coloured, and have dingy black spots on the feathers of the upper surface; the spots on the lower surface of the body are also much smaller and less distinctly indicated.

The Brown Thrasher inhabits the eastern province of North America to the Missouri River and north to Lake Winnipeg. In the plains between the Missouri River and the Rocky Mountains a long-tailed race (*H. longicaudus*) was supposed to exist; but it is now stated that every intermediate form between this race and true *H. rufus* can be found, and therefore no specific distinctions between them can be upheld. It has occurred once in Heligoland.

| | | |
|---|---|---|
| *a*. ♂ ad. sk. | Chicago, July 12, 1875. | H. K. Coale, Esq. [P.]. |
| *b*, *c*. Ad.; *d*. Juv. sk. | Ann Arbor, Michigan. | Prof. J. B. Steere [P.]. |
| *c*. Ad.; *f*. ♀ ad. sk. | Fort Dufferin, Manitoba (*G. Dawson*). | N. A. Boundary Commission. |
| *g*, *h*. Ad. st. | North America. | |

## 2. Harporhynchus cinereus.

Harporhynchus cinereus, *Xantus*, *Proc. Philad. Acad.* 1859, p. 298; *Baird*, *t. c.* p. 303; *Sclater*, *Cat. Amer. B.* p. 8 (1862); *Baird*, *Review Amer. B.* p. 46 (1864); *Elliot*, *New & Unfig. B. N. Amer.* pl. i. (1869); *Cooper*, *Orn. Calif.* p. 19 (1870); *Coues*, *Key N. Amer. B.* p. 75 (1872); *id. Am. Nat.* vii. pp. 327, 331, fig. 70 (1873); *Baird*, *Brewer*, *& Ridgw. N. Amer. B.* i. p. 40 (1874); *Coues*, *B. Color. Vall.* p. 68, note, fig. 11 (1878); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 12 (1881).

Mimus cinereus, *Gray*, *Hand-l. B.* i. p. 263. no. 3850 (1869).

*Adult male.* General colour above ashy brown, inclining to reddish brown on the rump and upper tail-coverts; lesser wing-coverts like the back; median and greater series more dusky brown, narrowly tipped with white, before which is a subterminal shade of darker brown, the greater coverts slightly tinged with rufous on their margins; bastard wing-feathers and primary-coverts darker brown, the latter with nearly obsolete whitish edgings to the tips; quills dark brown, externally ashy brown like the back, the primaries narrowly margined with whity brown; tail-feathers dark brown, with narrow rufous edgings, becoming fulvous on the outer feathers, the two outermost having a large white spot at the tip of the inner web, much smaller on the outer; lores ashy, with a line of ashy whitish from the base of the forehead to above the eye: ear-coverts ashy brown, with darker brown edges to the feathers, causing a slightly streaked appearance; cheeks whitish, spotted minutely with brown; chin and upper throat white: remainder of under surface white, slightly washed with buff, spotted with dark brown, the spots being triangular, small on the lower throat, but increasing in size on the

breast, and becoming more longitudinal on the buff-coloured flanks, narrower on the abdomen, the lower part of which is buffy white; under tail-coverts deep buff, paler at the ends; thighs ashy whitish, with concealed bases of dark brown; axillaries buff, with conspicuous brown centres to the feathers; wing-coverts whiter, also mottled with dark brown bases, the lower series ashy brown, edged with fulvous; quills dusky brown below, fulvous along the edge of the inner web. Total length 9 inches, culmen 1·05, wing 3·9, tail 4·4, tarsus 1·2.

*Adult female.* Similarly coloured to the male. Total length 9·5 inches, culmen 1·25, wing 3·85, tail 4·3, tarsus 1·35.

The St.-Lucas Thrasher is confined to Lower California.

| | | | |
|---|---|---|---|
| *a.* ♂ ad. sk. | La Paz, Lower California, Nov. 16. | A. Forrer [C.]. |
| *b.* ♀ ad. sk. | La Paz, Nov. 8. | A. Forrer [C.]. |
| *c.* ♂ ad. sk. | La Paz, Feb. 17. | A. Forrer [C.]. |

### 3. Harporhynchus bendirii.

Harporhynchus bendirei, *Coues, Am. Nat.* vii. p. 330, fig. 69 (1873); *Scott, Am. Nat.* vii. p. 565 (1873); *Brewer, Pr. Bost. Soc.* xvi. p. 108 (1873); *Baird, Brewer, and Ridgw. N. Amer. B.* iii. p. 500 (1874); *Coues, B. Color. Vall.* p. 67 (1878).

Harporhynchus cinereus, var. bendirei, *Heush. List B. Ariz.* p. 154 (1875); *id. Zool. Expl. W. 100th Merid.* p. 154 (1876).

Harporhynchus cinereus bendirei, *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 12 (1881).

Bill shorter than head, comparatively stout at base, very acute at tip, the culmen quite convex, the gonys, however, only just appreciably concave. Tarsus a little longer than the middle toe and claw. Third and fourth primaries about equal and longest, fifth and sixth successively slightly shorter, second equal to seventh, first equal to penultimate secondary in the closed wing. Entire upper parts, including upper surfaces of wing and tail, uniform dull pale greyish brown, with narrow, faintly rusty edgings of the wing-coverts and inner quills, and equally obscure whitish tipping of the tail-feathers. No maxillary nor auricular streaks; no markings about the head except slight speckling on the cheeks. Underparts brownish white, palest (nearly white) on the belly and throat, more decidedly rusty brownish on the sides, flanks, and crissum, the breast alone marked with numerous small arrow-head spots of the colour of the back. Bill light-coloured at base below. *Male*: length about $9\frac{1}{4}$; wing 4; tail $4\frac{1}{4}$; bill (chord of culmen) $\frac{7}{8}$, along gape $1\frac{1}{8}$; tarsus $1\frac{1}{4}$; middle toe and claw $1\frac{1}{8}$. *Female* rather smaller; wing $3\frac{3}{4}$, &c. (*Coues.*)

The Arizona Thrasher has as yet only been found in South-eastern Arizona.

### 4. Harporhynchus longirostris.

Orpheus longirostris, *Lafr. Rev. Zool.* 1838, p. 54; *id. Mag. de Zool.* 1838, *Ois.* pl. 1.

Toxostoma longirostre, *Cab. Arch. f. Naturg.* 1847, Band i. p. 207.
Turdus longirostris, *Gray, Gen. B.* i. p. 221 (1847).
Harporhynchus longirostris, *Cab. Mus. Hein.* Th. i. p. 81 (1850); *Baird, Rev. Amer. B.* p. 352 (1858); *id. U.S. Mex. B. Surv.* ii. part 2, *Birds*, p. 13, pl. 14 (1859); *Sclater, P. Z. S.* 1859, pp. 329, 362; *Baird, B. N. Amer.* p. 352, pl. 52 (1860); *Sclater, Cat. Amer. B.* p. 8 (1862); *Baird, Review Amer. B.* p. 44 (1864); *Sumichr. Mem. Bost. Soc. Nat. Hist.* i. p. 543 (1869); *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 31 (1879).
Mimus longirostris, *Gray, Hand-l. B.* i. p. 263, no. 3852 (1869).
Harporhynchus rufus, var. longirostris, *Coues, Key N. Amer. B.* p. 75 (1872); *Baird, Brewer, & Ridgw. N. Amer. B.* i. p. 39 (1874); *Merrill, Proc. U. S. Nat. Mus.* i. p. 119 (1878).
Harporhynchus rufus, β. longirostris, *Coues, Birds Color. Vall.* p. 63 (1878).
Harporhynchus rufus longirostris, *Sennett, Bull. U.S. Geol. Surv.* iv. p. 3; *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 12 (1881).

*Adult.* General colour above dull rufous, a little brighter on the lower back, rump, and upper tail-coverts; wing-coverts like the back; the median and greater series narrowly tipped with fulvous, before which is a black subterminal bar; bastard wing-feathers dusky brown, edged with fulvous; primary-coverts dull rufous-brown; quills dark brown, externally rufous like the back, the secondaries a little duller; tail-feathers rufous-brown, margined with brighter rufous, the two outer feathers with slightly indicated fulvous tips; head a little more dingy on the back, especially on the forehead; lores and feathers round the eye fulvescent; ear-coverts uniform brown; cheeks black, slightly mottled with white bases; throat buffy white; remainder of under surface white tinged with buff, and thickly spotted with triangular marks of black, more longitudinal on the flanks, those on the abdomen thin and long; centre of abdomen uniform creamy white; thighs whitish, mottled with black bases; under tail-coverts ochraceous buff, with arrow-shaped dark-brown centres; axillaries fulvous, centred with dark brown; wing-coverts whitish, also mottled with centres of dark brown; quills dull brown below, rufous along the inner web; bill and feet dull hazel-brown. Total length 11 inches, culmen 1·4, wing 3·75, tail 4·9, tarsus 1·3.

The Mexican Brown Thrasher is confined in North America to the valley of the Rio Grande, and extends to Mexico, where, however, it appears to be confined to the eastern portion of the country from the valley of the Rio Grande to the State of Vera Cruz.

| | | |
|---|---|---|
| *a*. Ad. st. | Mexico. | Purchased. |
| *b*. Ad. sk. | Mexico. | Zoological Society. |

### 5. Harporhynchus ocellatus.

Harporhynchus ocellatus, *Sclater, P. Z. S.* 1862, p. 18, pl. iii.; *id. & Salv. Nomencl. Av. Neotr.* p. 2 (1873); *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 32 (1879).
Mimus ocellatus, *Gray, Hand-l. B.* i. p. 263, no. 3849 (1869).

*Adult male* (Oaxaca, S. Mexico; A. Fenochio). General colour

above ashy brown, slightly washed with clearer brown on the lower back, rump, and upper tail-coverts; least wing-coverts like the back, the median and greater series more dusky brown, becoming subterminally blacker and having a white spot at the tip; primary-coverts also dusky brown, edged with whitish; wing-feathers dark brown, externally like the back, the outer primaries margined with whity brown; tail-feathers dark brown, edged with lighter brown, all but the centre feathers tipped with white, before which is a narrow subterminal line of black; lores and a narrow eyebrow ashy fulvous; sides of face and ear-coverts light brown, the feathers about the angle of the mouth blackish; plumes at base of lower mandible whitish; throat pure white; remainder of under surface of body white, spotted with black, these spots being very large on the fore neck and breast, and much smaller on the middle of the breast and sides of abdomen; centre of abdomen white, unspotted; thighs ashy brown; under tail-coverts white, barred with light brown, each bar of the latter colour having a conterminous dark-brown bar; under wing-coverts and axillaries pale drab-brown, with a blackish spot near the end; edge of wing white, spotted with black; quills dusky brown below, ashy fulvous along the edge of the inner web; bill black; feet coral-red. Total length 11·25 inches, culmen 1·5, wing 4·15, tail 5·65, tarsus 1·45. (*Mus. Salvin and Godman.*)

The Ocellated Thrasher has only been found as yet in the neighbourhood of Oaxaca in Mexico.

### 6. Harporhynchus curvirostris.

Orpheus curvirostris, *Swains. Philos. Mag.* new series, i. p. 369, (1827).

Pomatorhinus turdinus, *Temm. Pl. Col.* ii. pl. 441 (1827).

Turdus deflexus, *Licht. Preis-Verz. mex. Vög.* p. 2 (1830); *Cab. J. f. O.* 1863, p. 57.

Toxostoma vetula, *Wagler, Isis*, 1831, p. 528.

Mimus curvirostris, *Gray, Gen. B.* i. p. 221 (1847); *id. Hand-l. B.* i. p. 263, no. 3845.

Toxostoma curvirostris, *Bp. Consp.* i. p. 277 (1850).

Harporhynchus curvirostris, *Cab. Mus. Hein.* Th. i. p. 81, note (1850); *Baird, Birds N. Amer.* p. 351 (1858); *id. Birds U.S. Mex. B. Surv.* ii. pt. 2, *Birds*, p. 12, pl. 13 (1859); *Sclater, P. Z. S.* 1859, pp. 339, 370; *Baird, B. N. Amer.* 1860, p. 351, pl. 35; *id. Review Amer. B.* p. 45 (1864); *Dresser, Ibis*, 1865, p. 482; *Sumichr. Mem. Bost. Soc. N. H.* i. p. 543 (1869); *Lawr. op. cit.* ii. p. 267; *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *Coues, Am. Nat.* vii. p. 328 (1873); *Baird, Brewer, & Ridgw. N. Amer. B.* i. p. 41, pl. 3. fig. 3 (1874); *Lawr. Bull. U.S. Nat. Mus.* part iv. p. 12 (1878); *Merrill, t. c.* p. 119 (1878); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 4; *Salv. & Godm. Biol. Cent.-Amer., Aves*, i. p. 32 (1879); *Ridgw., Bull. U.S. Nat. Mus.* no. 24, p. 12 (1881).

Toxostoma curvirostre, *Sclater, P. Z. S.* 1857, p. 212.

Harporhynchus curvirostris, var. curvirostris, *Baird, Brewer, & Ridgw. N. Amer. B.* i. p. 36; *Coues, B. Color. Vall.* p. 64 (1878).

*Adult.* General colour above light ashy brown, the lesser wing-

coverts like the back, the median and greater series light drab-brown, with a narrow edging of white at the tip: primary-coverts and quills brown, externally ashy brown like the back, the primaries edged with whitish, the secondaries having also a narrow margin of whitish at their tips; tail-feathers brown, narrowly edged with lighter brown, all but the two centre feathers tipped with white, having a large spot on the inner web, and a smaller one at the tip of the outer web; lores buffy whitish; ear-coverts light ashy brown like the head, slightly streaked down the centre with whitish; feathers below the eye and the cheeks white, slightly mottled with dusky tips to the feathers; throat white; remainder of under surface ashy whitish, tinged with tawny buff on the flanks and under tail-coverts, which are uniform; the fore neck and breast have large triangular spots of light ashy brown; abdomen uniform whitish; axillaries and under wing-coverts ashy brown, washed slightly with reddish buff; under surface of quills light brown, ashy whitish along the edge of the inner web. Total length 11 inches, culmen 1·25, wing 4·25, tail 4·41, tarsus 1·3.

The Curve-billed Thrasher ranges from the valley of the Rio Grande in Texas into Mexico.

| | | |
|---|---|---|
| *a*. Ad. sk. | Mexico. | John Taylor, Esq. [P.]. |
| *b*. Ad. st. | Mexico. | Purchased. |
| *c, d*. Ad. sk. | Mexico. | Purchased. |

## 7. Harporhynchus palmeri.

Harporhynchus curvirostris, *Heerm. Pacific Railr. Rep.* x. p. 11 (1859); *Coues, Pr. Philad. Acad.* 1868, p. 83; *Coues, Key N. Amer. B.* p. 75 (1872).

Harporhynchus curvirostris, var. palmeri, *Coues, Key*, p. 351 (1872, *ex Ridgw. MSS.*); *id. Am. Nat.* vii. p. 329, fig. 68 (1873); *Brewer, Pr. Bost. Soc.* xvi. p. 108 (1873); *Baird, Brewer, & Ridgw. N. Amer. B.* i. p. 43 (1874); *Hensh. List B. Ariz.* p. 154 (1875); *id. Zool. Expl. W. 100th Merid.* p. 156 (1876); *Coues, B. Color. Vall.* p. 65 (1878).

Harporhynchus curvirostris palmeri, *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 12 (1881).

Although the differences between this and the typical form are not very easy to express, yet they are readily appreciable on comparison of specimens, and fully warrant Mr. Ridgway's discrimination of a var. *palmeri*. The upper parts are quite similar; but the underparts, instead of being whitish, with decided spotting of the colour of the back, are greyish, tinged with rusty, especially behind, and the spotting is nebulous. The white on the ends of wing-coverts and tail-feathers is reduced to a minimum or entirely suppressed. The bill is slenderer and apparently more curved in all the specimens I have seen. (In the figure the bill is rather too stout.) Average dimensions of four specimens of both sexes:—length 10·75 inches, wing 4·33, tail 5, chord of culmen 1·12, tarsus 1·25, middle toe and claw rather more. (*Coues.*)

Palmer's Curve-billed Thrasher inhabits Arizona, where it represents *H. curvirostris*.

### 8. Harporhynchus redivivus.

Harpes rediviva, *Gambel, Proc. Philad. Acad.* ii. p. 264 (1845).
Toxostoma rediviva, *Gambel, Journ. Philad. Acad.* 2nd ser. i. p. 42 (1847); *Bp. Consp.* i. p. 277 (1850); *Cass. B. Calif.* p. 260, pl. 42 (1856).
Harporhynchus redivivus, *Cab. Arch. f. Naturg.* 1848, p. 98; *id. Mus. Hein.* Th. i. p. 8, note (1850); *Baird, B. N. Amer.* p. 349 (1858); *Sclater, P. Z. S.* 1859, p. 339; *Baird, Review Amer. B.* p. 48 (1864); *Cooper, Orn. Calif.* p. 15 (1870); *Coues, Key N. Amer. B.* p. 75 (1872); *id. Am. Nat.* vii. p. 327, fig. 66 (1873); *Baird, Brewer, & Ridgw. N. Amer. B.* i. p. 45, pl. 4. fig. 4 (1874); *Coues, B. Color. Vall.* p. 71, note, fig. 12 (1878); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 12 (1881).
Toxostoma redivivum, *Sclater, P. Z. S.* 1857, p. 126.
Mimus redivivus, *Gray, Hand-l. B.* i. p. 263, no. 3846 (1869).
Furnarius mexicanus, *Gould* (ubi ?).

*Adult male.* General colour above dark brown, the wing-coverts like the back, with obsolete pale spots at the end of the median and greater coverts, the latter also margined with light reddish brown; primary-coverts dusky brown; quills dark brown, externally edged with dull reddish brown; tail-feathers dark brown, margined with lighter brown, the outer feathers paler brown at the ends; lores ashy, mottled with blackish; from the base of the forehead a line of ashy whitish extending above the fore part of the eye; feathers below the eye and the ear-coverts dark brown, the feathers streaked with ashy white; cheeks dark brown, the malar line and the throat white; lower throat, fore neck, and breast as well as the sides of the body ashy brown; centre of breast and abdomen light ochreous buff, deepening into tawny buff on the under tail-coverts, which have also whitish tips; thighs ashy brown; axillaries and under wing-coverts ashy brown, slightly tinged with reddish brown; quills dusky brown below, edged with reddish brown along the inner web. Total length 11 inches, culmen 1·65, wing 4·2, tail 5·25, tarsus 1·55.

*Adult female.* Similar to the male in colour. Total length 10·5 inches, culmen 1·6, wing 4·05, tail 5·1, tarsus 1·5.

*Young.* Similar in colour to the adults, but having a much shorter bill, and being rather more rufescent in colour, especially on the flanks and under tail-coverts and on the ends of the outer tail-feathers; the wing-coverts, quills, and tail-feathers all edged with rufous-brown.

The Californian Thrasher is only found on the coast-region of California.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | Big Trees, Santa Cruz, California. April 26. | A. Forrer [C.]. |
| *b.* ♀ ad. sk. | Big Trees, May 14. | A. Forrer [C.]. |
| *c.* Juv. sk. | Big Trees, May 30. | A. Forrer [C.]. |
| *d.* Ad. sk. | [Mexico.] | Zoological Society. (Type of *Furnarius mexicanus*, Gould.) |

### 9. Harporhynchus lecontii.

Toxostoma lecontei, *Lawr. Ann. Lyc. N. Y.* v. p. 121 (1852); *Baird, in Stansb. Rep.* 1852, p. 329.

Harporhynchus lecontei, *Bp. C. R.* xxxviii. p. 57 (1854); *Baird, B. N. Amer.* p. 350, pl. 50 (1858); *id. U.S. Mex. B. Surv.* ii. pt. 2, *Birds*, p. 12, pl. 12 (1859); *Scl. P. Z. S.* 1859, p. 339; *Baird, Review Amer. B.* p. 47 (1864); *Coues, Ibis*, 1866, p. 259; *Cooper, Orn. Calif.* p. 17 (1870).

Mimus lecontei, *Gray, Hand-l. B.* i. p. 263, no. 3847 (1869).

Harporhynchus redivivus, var. lecontei, *Coues, Key N. Amer. B.* p. 75 (1872); *Baird, Brewer, & Ridgw. N. Amer. B.* i. p. 44, pl. 4. fig. 3 (1874).

Harporhynchus redivivus lecontei, *Coues, Birds Color. Vall.* p. 70 (1878); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 12 (1881).

This form, with the size and proportions substantially the same as those of *redivivus* proper, differs very notably in the pallor of all the coloration, being in fact a bleached desert race. Excepting the slight maxillary streaks, there are no decided markings anywhere; and the change from the pale ash of the general underparts to the brownish yellow of the lower belly and crissum is very gradual. (*Coues.*)

Leconte's Thrasher replaces *H. redivivus* in the "immediate valley of the Colorado and Gila rivers" in Arizona.

### 10. Harporhynchus graysoni.

Harporhynchus graysoni, *Lawr. Ann. Lyc. N. Y.* x. p. 1; *Grayson, Pr. Bost. Soc.* xiv. p. 298; *Lawr. Mem. Bost. Soc.* ii. p. 367; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 33 (1879); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 13 (1881).

*Male.* Above of a rather dirty reddish brown, the front paler; a blackish spot in front of and under the eye; chin, upper part of throat, and sides of the head pale ochreous, the latter marked with faint dusky bars; tail dark liver-brown, the outer three feathers with a greyish spot on the inner web at the end; quills of the same colour as the tail, the larger ones narrowly edged with dull white, the others with dull pale rufous; entire under surface pale yellowish fulvous, the sides darker, with longitudinal brown stripes; bill black; tarsi and toes blackish brown. Length (fresh) $11\frac{1}{2}$ inches, bill $\frac{3}{4}$, wing $4\frac{1}{4}$, tail $5\frac{1}{4}$, tarsus $1\frac{3}{8}$. (*Lawrence.*)

Grayson's Thrasher is only known from Socorro Island off Western Mexico.

### 11. Harporhynchus crissalis.

Toxostoma crissalis, *Henry, Proc. Philad. Acad.* 1858, p. 117.

Harporhynchus crissalis, *Baird, B. N. Amer.* p. 350, pl. 82 (1858); *Sclater, P. Z. S.* 1859, p. 339; *Baird, Review Amer. B.* p. 47 (1864); *Coues, Proc. Philad. Acad.* xviii. p. 65 (1866); *Cooper, Orn. Calif.* p. 18 (1870); *Coues, Key N. Amer. B.* p. 75 (1872); *id.*

*Am. Nat.* vi. p. 370 (1872); *Baird, Brewer, & Ridgw. N. Amer. B.* i. p. 47, pl. 4. fig. 1 (1874); *Coues, B. Color. Vall.* p. 73 (1878); *Ridgw. Bull. U.S. Nat. Mus.* no. 24, p. 12 (1881).

Mimus crissalis, *Gray, Hand-l. B.* i. p. 263, no. 3848 (1869).

*Adult male.* Brownish ash, with a faint olive shade, the wings and tail purer and darker fuscous, without white edging or tipping; below a pale shade of the colour of the upper parts; throat and sides of the lower jaw white, with sharp black maxillary streaks; cheeks and auriculars speckled with whitish. Under tail-coverts deep rich chestnut, in marked contrast with the surrounding parts. Bill black, slenderer for its length than that of any other species, as long as that of *H. redivivus*, arcuate. Length about 12 inches, wing 4, or rather less; tail about 6 (more or less, thus absolutely longer than in any other species), its lateral feathers $1\frac{1}{2}$ shorter than the central ones; bill $1\frac{1}{2}$, tarsus $1\frac{1}{2}$, middle toe and claw $1\frac{1}{4}$. (*Coues.*)

The Rufous-vented Thrasher is confined to the south-western United States of North America, being found in Arizona, New Mexico, Southern Utah and California in the Colorado valley. It has been found breeding in Southern Utah and in Arizona.

## 55. MELANOTIS.

Type.

Melanotis, *Bp. Consp. Av.* i. p. 276 (1850, *descr. nullâ*; undè) ..... M. cærulescens.

Melanotis, *Baird, Review Amer. B.* p. 56 (1864) .... M. cærulescens.

*Range.* Confined to Central America, where it is found in Mexico and Guatemala; it also occurs in the Tres Marias Islands.

### *Key to the Species.*

*a.* Underneath slaty blue, with lanceolate streaks of brighter blue on the throat and breast ..... *cærulescens*, p. 362.

*b.* Underneath white, the sides of breast, flanks, thighs, and under tail-coverts slaty blue ..... *hypoleucus*, p. 363.

### 1. Melanotis cærulescens.

Orpheus cærulescens, *Swains. Phil. Mag.* new series, i. p. 369 (1827).

Turdus melanotis, *Temm. Pl. Col.* ii. pl. 498 (1830).

Turdus erythrophthalmus, *Licht. Preis-Verz. mex. Vög.* p. 2 (1830); *Cab. J.f. O.* 1863, p. 57.

Mimus cærulescens, *Gray, Gen. B.* i. p. 221(1847); *Sclater, P. Z. S.* 1856, p. 294; *Gray, Hand-l. B.* i. p. 262, no. 3838 (1869).

Melanotis melanotis, *Bp. Consp.* i. p. 276 (1850).

Melanotis cærulescens, *Sclater, P. Z. S.* 1859, pp. 362, 370; *id. Cat. Amer. B.* p. 7 (1862); *Baird, Review Amer. B.* p. 56 (1864); *Sumichr. Mem. Bost. Soc. N. H.* i. p. 543 (1868); *Grayson, Proc. Bost. Soc. N. H.* xiv. p. 275 (1871); *Lawr. Mem. Bost. Soc.* ii. p. 266; *Scl. & Salv. Nomencl. Av. Neotr.* p. 3 (1873); *Lawr. Bull. U.S. Nat. Mus.* i. no. 4, p. 12 (1876); *Salv. & Godw. Biol. Centr.-Amer., Aves*, i. p. 28 (1879).

*Adult.* General colour above slaty blue, brighter on the crown and especially over the eye; wing-coverts like the back; quills dusky blackish, externally slaty blue like the back; tail slaty blue, barred with indistinct wavy bands of dusky under certain lights, the inner webs dusky; lores, feathers below the eyes and at the base of lower mandible black; under surface of body slaty blue, dusky blackish on the chin; the throat, fore neck, and sides of neck with lanceolate streaks of lighter blue; axillaries and under wing-coverts, as well as the thighs and under tail-coverts, slaty blue like the breast; "bill and feet black" (*Salvin*). Total length 11 inches, culmen 1·25, wing 4·5, tail 5, tarsus 1·2.

*Young.* Whole-coloured like the adult, but dull slate-colour without any blue shade except on the quills and tail; ear-coverts and lores black.

The Slaty-blue Mocking-Thrush is an inhabitant of Mexico from Mazatlan to Tehuantepec, generally in the temperate region, though in the State of Vera Cruz it ranges into the hot and alpine regions up to 4300 feet. It is also found in the Tres Marias Islands.

| | | |
|---|---|---|
| *a*, *b*, *c*. Ad. sk. | Mexico. | Purchased. |
| *d*. ♂ juv. sk. | Mexico. | M. Sallé [C.]. |

## 2. Melanotis hypoleucus.

Melanotis hypoleucus, *Hartl. Rev. Zool.* 1852, p. 460; *Sclater, P. Z. S.* 1859, p. 337; *Scl. & Salv. Ibis*, 1859, p. 7, 1860, p. 29; *Scl. Cat. Amer. B.* p. 7 (1862); *Baird, Rev. Amer. B.* p. 57 (1864); *Scl. & Salv. Ex. Orn.* p. 85, pl. 43 (1868); *id. Nomencl. Av. Neotr.* p. 3 (1873); *Salv. & Godman, Biol. Centr.-Amer., Aves*, i. p. 29 (1879).

Mimus hypoleucus, *Gray, Hand-l. B.* i. p. 262, no. 3839 (1869).

*Adult.* General colour dark slaty blue; lesser and median wing-coverts like the back; greater series and quills blackish, externally edged with slaty blue; two central tail-feathers slaty blue, the remainder blackish on the inner webs, slaty blue on the outer; crown of head brighter slaty blue than the back, especially over the eyes; a narrow line at base of forehead, lores, ear-coverts, as well as the feathers below the eye extending along the basal edge of the lower mandible, black; cheeks and under surface of body pure white, the entire sides of the body, flanks, thighs, and under tail-coverts slaty blue, as also are the axillaries and under wing-coverts; quills dusky brown below, lighter along the inner web; "bill and feet black" (*Salvin*). Total length 10·5 inches, culmen 1·15, wing 4·2, tail 5·5, tarsus 1·3.

*Young.* Differs from the adult in being dull sooty grey above, with very little of the slaty-blue colour observable in the adult, except on the wings and tail, which are slaty blue externally; below, the parts which are slaty blue in the old bird are merely dull sooty grey, while all the breast, which should be pure white, is dull sooty

grey mottled with white, the bases to the feathers being white and showing through more or less.

The White-breasted Blue Mocking-Thrush is resident in Guatemala, inhabiting the highlands from 3000 to 7000 feet above the sea-level.

| | | |
|---|---|---|
| *a*. Ad. st. | Guatemala. | Purchased. |
| *b*. Ad. sk. | Guatemala. | Osbert Salvin, Esq. [P.]. |

## 56. DONACOBIUS.

Type.

Donacobius, *Swains. Zool. Illustr.* 2nd ser. ii. pl. 72 (1831–32) ..... D. atricapillus.

*Range.* Confined to South America, where it is extensively spread over Brazil, occurring also in Bolivia, Amazonia, Colombia, and Guiana.

*Key to the Species.*

*a*. Without a white streak from behind the eye.. *atricapillus*, p. 364.
*b*. With a distinct streak of white on the sides of the hinder crown from behind the eye to the side of the nape ..... *albovittatus*, p. 365.

### 1. Donacobius atricapillus.

Japacani, *Marcgr. Bras.* p. 212.
Le Merle à teste noire du Cap de Bonne Espérance, *Briss. Orn.* vi. *App.* p. 47, pl. 3. fig. 2 (1760); *Daubent. Pl. Enl.* iv. pl. 392.
Turdus atricapilla, *Linn. Syst. Nat.* i. p. 295 (1766).
Gracula longirostris, *Pall. Spicil.* vi. p. 5, pl. 2. fig. 2 (1767).
Turdus cyaneus, *P. L. S. Müll. Syst. Nat.* Anhang, p. 145 (1776); *Cass. Proc. Philad. Acad.* 1864, p. 251.
Oriolus japacani, *Gm. S. N.* i. p. 385 (1788).
Turdus brasiliensis, *Gm. S. N.* i. p. 831.
Icterus japacani, *Daud. Traité d'Orn.* ii. p. 343 (1800).
Agullas palladas, *Azara, Apunt.* ii. p. 214 (1805).
Turdus pratensis, *Vieill. N. Dict. d'Hist. Nat.* xx. p. 286 (1818); *Bonn. et Vieill. Enc. Méth.* ii. p. 671 (1823).
Donacobius vociferans, *Swains. Zool. Illustr.* 2nd ser. ii. pl. 72 (1831–1832); *Hartl. Ind. Azara*, p. 14 (1847).
Mimus brasiliensis, *Wied, Beitr. Naturg. Bras.* iii. p. 662 (1831).
Donacobius atricapillus, *Gray, Gen. B.* i. p. 223 (1846); *Cab. in Schomb. Guian.* iii. p. 674 (1848); *Bp. Consp.* i. p. 277 (1850); *Burm. Th. Bras.* iii. p. 129 (1856); *Sclater, Cat. Amer. B.* p. 6 (1862); *Baird, Review Amer. B.* p. 58, note (1864); *Pelz. Orn. Bras.* p. 49 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 5 (1873).
Donacobius cyaneus, *Gray, Hand-l. B.* i. p. 191, no. 2629 (1869).

*Adult.* General colour above dark chocolate-brown, the lower back, rump, and upper tail-coverts reddish brown; wing-coverts like the back; bastard wing and primary-coverts black; quills black, with a large white patch on the inner primaries; inner

secondaries dark brown; tail-feathers black, narrowly fringed with white at the tip of the centre ones, the remainder with a broad white end, increasing in extent towards the outer ones; head and nape black, the blackish shade extending also slightly onto the hind neck; lores, sides of face, and ear-coverts black, as well as the feathers at base of lower mandible; cheeks and under surface of body ochreous buff, the sides of the breast and flanks varied with cross lines of dusky brown; thighs reddish brown behind; under tail-coverts deeper ochreous buff; under wing-coverts and axillaries chocolate-brown, the latter slightly varied with blackish cross lines; quills blackish brown below, with a large patch of white at the base of the primaries; "bill black; legs blackish brown; iris bright yellow" (*Wied*). Total length 8·2 inches, culmen 1, wing 3·2, tail 3·7, tarsus 1·2.

*Young*. Differs from the adult in having the head browner, and the ear-coverts slightly streaked with fulvescent shaft-lines; the wing-coverts tipped with rufous; wing-spot much smaller; throat and cheeks whitish; flanks without any cross lines. Total length 7·5 inches, culmen 0·9, wing 2·9, tail 3·7, tarsus 1·15.

The Black-headed Mocking-Thrush inhabits South America.

| | | |
|---|---|---|
| *a*. Ad. sk. | Brazil. | Prince Lichtenstein [P.]. |
| *b*. Ad. sk. | Brazil. | M. Claussen [P.]. |
| *c*. Ad. sk. | Pebas. | J. Hauxwell, Esq. [C.]. |
| *d*. Ad.; *e*. Juv. sk. | South America. | Purchased. |

## 2. Donacobius albovittatus.

Donacobius albovittatus, *Lafr. et D'Orb. Mag. de Zool.* 1837, p. 19; *D'Orb. Voy. Amér. mérid.* p. 213, pl. 12. fig. 1; *Baird, Review Amer. B.* p. 58, note (1864); *Scl. & Salv. Nomencl. Av. Neotr.* p. 5 (1873); *id. P. Z. S.* 1879, p. 592.

Donacobius albolineatus, *Gray, Gen. B.* i. p. 223 (1846); *Bp. Consp.* i. p. 277 (1850); *id. C. R.* xxxviii. p. 58 (1854); *Gray, Hand-l. B.* i. p. 192, no. 2630 (1869).

*Adult*. General colour above chocolate-brown, including the wing-coverts and scapulars; primaries blackish brown, with a large patch of white at their base, forming a conspicuous wing-spot, the secondaries chocolate-brown; lower back, rump, and upper tail-coverts reddish brown, especially the latter; centre tail-feathers dark chocolate-brown, the remainder black, tipped with white, which increases in extent towards the outermost, which are white with black bases; head and nape black, as well as the sides of the face and ear-coverts and sides of the neck; a white stripe running from the hinder part of the eye, above the ear-coverts to the side of the nape; cheeks and under surface of the body rich ochreous yellow, deeper on the flanks and under tail-coverts, as well as on the breast, the sides of the latter and the upper flanks barred with narrow dusky cross lines; axillaries brown, narrowly barred with blackish cross lines; under wing-coverts dark brown, the edge of

the wing black with a few white markings; quills blackish brown below, with a very large white patch at the base of the primaries. Total length 9 inches, culmen 1·1, wing 3·3, tail 3·85, tarsus 1·25.

The White-banded Mocking-Thrush is an inhabitant of Bolivia.

*a*. Ad. sk. Bolivia. Purchased.

## 57. RHODINOCICHLA.

| | Type. |
|---|---|
| Rhodinocichla, *Hartl. J. f. O.* 1853, p. 33 ..... | R. rosea. |
| Cichlalopia, *Bp. C. R.* xxxviii. p. 6 (1854) ..... | R. rosea. |
| Rhodocichla, *Sundev. Av. Meth. Tent.* p. 13 (1872, *nom. emend.*) ..... | R. rosea. |

*Range.* Confined to Central America.

*Key to the Species.*

*a*. Upper parts, sides, and flanks sooty black, the flanks scarcely paler ..... *rosea*, p. 366.
*b*. Upper parts, sides, and flanks clear slate-colour, the flanks almost cinereous ..... *schistacea*, p. 367

### 1. Rhodinocichla rosea.

Furnarius roseus, *Less. Ill. Zool.* pl. 5.
Rhodinocichla rosea, *Hartl. J. f. O.* 1853, p. 33; *Sclater, P. Z. S.* 1855, p. 141, 1856, p. 140; *Lawr. Ann. Lyc. N. Y.* vii. p. 292, ix. p. 92; *Baird, Review Am. B.* p. 91; *Scl. & Salv. P. Z. S.* 1864, p. 345; *Salv. P. Z. S.* 1867, p. 133, 1870, p. 180; *Finsch, Abhandl. nat. Ver. Bremen*, 1870, p. 329; *v. Frantz. J. f. O.* 1869, p. 291; *Lawr. Mem. Bost. Soc. Nat. Hist.* ii. p. 267; *Sclater & Salv. Nomencl. Av. Neotr.* p. 3; *Salv. & Godm. Biol. Cent.-Amer., Aves*, i. p. 38 (1879).
Turdus vulpinus, *Hartl. Rev. Zool.* 1849, p. 276; *id. P. Z. S.* 1850, p. 276.
Cichlalopia vulpina, *Bp. C. R.* xxxviii. p. 6.
Turdus roseus, *Gray, Hand-l. B.* i. p. 258, no. 3759.
Rhodocichla rosea, *Sundev. Av. Meth. Tent.* p. 13.

*Adult.* General colour above slaty black; the wings like the back, the primaries only rather browner, the secondary quills and greater coverts blackish, with dull margins of ashy olive; the edge of the wing and along the carpal joint crimson; tail-feathers black; from the base of the bill to above the eye a broad streak of bright crimson, continuing into a paler rosy streak running above the ear-coverts to the sides of the nape; lores, feathers below the eye, and ear-coverts blackish; cheeks, throat, and breast deep crimson, fading off into a little lighter rosy colour on the abdomen and under tail-coverts; sides of breast and sides of body and flanks ashy blackish; under wing-coverts crimson, the lower series ashy with whitish margins; quills dusky brown below, whitish along the edge of the inner web. Total length 7·7 inches, culmen 0·95, wing 3·25, tail 3·3, tarsus 1·05.

*Female.* Similar to the male, but having the eyebrow and the under surface of the body deep saffron or tawny rufous.

*Young.* All over blackish, with a few rufous edges to the wing-coverts; underneath mottled like a young Blackbird, the feathers sandy buff with broad black edges; the centre of the abdomen somewhat whiter; over the eye a broad streak of white. (*Mus. Salvin and Godman.*)

The Rose-breasted Wren is common in Venezuela, Colombia, and the State of Panama. It has been found also in Costa Rica, and is supposed to have been sent once from Guatemala, but on very doubtful authority.

| | | |
|---|---|---|
| *a.* Ad. sk. | New Granada. | Edward Wilson, Esq. [P.]. |
| *b.* Ad. sk. | New Granada. | Purchased. |
| *c.* Imm. sk. | Santa Fé de Veragua (*E. Arcé*). | Osbert Salvin, Esq. |

### 2. Rhodinocichla schistacea.

Rhodinocichla rosea, *β.* schistacea, *Ridgw. Proc. U.S. Nat. Mus.* i. p. 247.

Above clear slate-colour, the wings darker, with paler, nearly cinereous edges to the feathers; lores and auriculars dark slate; entire sides clear slate, becoming more ashy on the flanks. *Adult male*: A continuous superciliary stripe, the anterior half of which is intense rose-red, the posterior half rosy white; chin, throat, malar region, middle of the jugulum, breast, and abdomen, and the whole crissum, pure beautiful rose-red, most intense on the jugulum, narrower and paler on the abdomen; edge of the wing and anterior lesser coverts also pure rose-red; lining of the wing partly greyish white. *Adult female*: Similar, but the red replaced by rich tawny rufous, the middle of the abdomen whitish. Bill horn-yellowish, the maxilla mostly dusky; iris red or brown; feet dark horn-colour. Length 8·25 inches, wing 3·45–3·60, tail 3·75–3·90, bill from nostril ·60–·65, tarsus 1·00, middle toe ·70–·75. (*Ridgway.*)

Ridgway's Rose-breasted Wren is a representative of the foregoing bird in Western Mexico, where it has been found in the Sierra Madre of Colima and in Mazatlan.

## Subfamily IV. MYIADECTINÆ.

The present position of the birds contained in this subfamily is not very satisfactory to my mind. After having been placed among the *Ampelidæ* by many authors, they have been recently located by Messrs. Sclater and Salvin in the *Sylviidæ*, but Mr. Seebohm has not admitted them into his volume of the 'Catalogue.' I have therefore placed them near the Mocking-Thrushes, which they resemble in their power of song; but their broadened bill and powerful rictal bristles are like those of the Flycatchers, and, as Mr. Salvin has pointed out, they appear to be not distantly related to the members of the African genus *Cassinia* (*cf.* Cat. B. vol. iv. p. 466).

### 58. MYIADECTES.

Type.

Myiadestes, *Swains. Nat. Libr.* x. p. 134 (c. 1838) .... M. genibarbis.
Myiadectes, *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 39 (1879).

*Range.* Middle and Pacific Provinces of the United States, ranging throughout the whole of Central America into the Andes of Venezuela, Colombia, and Peru.

*Key to the Species.**

*a*. Throat chestnut.
  *a'*. Ear-coverts uniform slaty grey, or with only slight indications of paler shaft-lines; a white chin-spot ..... *solitarius*, p. 370.
  *b'*. Ear-coverts very distinctly streaked with white.
    *a''*. Ear-coverts slaty grey, like the upper surface; a large white chin-spot, and another at base of lower mandible; throat and under tail-coverts deep chestnut ..... *genibarbis*, p. 371.
    *b''*. Ear-coverts black, like the upper surface; no white chin-spot; feathers at base of lower mandible reddish white; throat and under tail-coverts orange-chestnut ..... *sibilans*, p. 372.
*b*. Throat ashy grey or white.
  *c'*. Bill black or horn-brown, the under mandible sometimes yellowish.
    *c''*. Throat white; under tail-coverts white: general colour above ashy olive; under surface of body white, with the breast and flanks light ashy. *elizabethæ*, p. 373.
    *d''*. Throat light ashy, like the rest of the under surface; under tail-coverts light ashy, broadly margined with white.
      *a'''*. Back olive-brown; head grey, in contrast; wing-coverts and quills dusky brown, edged with reddish brown; no perceptible wing-spot at base of secondaries..... *obscurus*, p. 374.
      *b'''*. Back ashy, like the head; wing-coverts and quills blackish edged with ashy, and having

* Mr. Cory, in his description of his *M. montanus*, does not mention the colour of the ear-coverts, and I have not been able to place that species in the "Key."

a white patch at base of primaries, with a second of ochraceous buff at base of secondaries, the innermost of the latter broadly edged with white..... *townsendi*, p. 374.

*e''*. Throat slaty blue, like the rest of the under surface; under tail-coverts light slaty blue, narrowly margined with white.

*c'''*. Upper surface ruddy brown; forehead, eyebrow, and sides of face slaty grey..... *ralloides*, p. 375.

*d'''*. Upper surface dull slate-colour; sides of face the same ..... *unicolor*, p. 376.

*d'*. Bill yellow; plumage grey, with the lores, eyebrow, sides of face, and chin black..... *melanops*, p. 376.

*c*. Throat and chest, as well as centre of abdomen, black; lores and sides of face white; upper parts cinnamon ..... *leucotis*, p. 377.

## 1. Myiadectes solitarius.

Ptilogonys armillatus (*nec Vieill.*), *Gray & Mitch. Gen. B.* i. p. 281, pl. 69 (1846): *Sclater, P. Z. S.* 1861, p. 73.

Muscicapa armillata (*nec Vieill.*), *Gosse, B. Jamaica*, p. 198 (1847).

Myiadestes armillatus, *Bp. Consp.* i. p. 335 (1850); *Scl. P. Z. S.* 1857, p. 6; *id. Cat. Amer. B.* p. 47 (1862); *March, Proc. Philad. Acad.* 1863, p. 294.

Myiadestes solitarius, *Baird, Review Amer. B.* p. 421 (1864); *Scl. & Salv. Nomencl. Av. Neotr.* p. 4 (1873).

Ptilogonys solitarius, *Gray, Hand-l. B.* i. p. 366, no. 5571 (1869).

*Adult male.* General colour above light slaty grey, the least and median wing-coverts like the back, the greater series black, externally edged with slaty grey; primary-coverts black; quills black, edged with slaty grey on the outer web, the outer primaries for nearly their whole length, the inner primaries near the base and again near the end, and having also a half-concealed spot of white near the base of two of the feathers; secondaries broadly edged with slaty grey at the base and near the ends, but the innermost for their entire length; centre tail-feathers slaty grey, the remainder blackish, the three outermost tipped with white, much extended on the two outermost, the external feather being for the most part white, with a blackish base to the inner web and a long blackish mark near the end of its outer web; base of forehead and lores black, extending below the eye onto the ear-coverts, which are otherwise dark slaty grey, below the eye a spot of white; base of cheeks and a spot at the base of the chin white, the former separated from the throat by a narrow and almost imperceptible line of black; throat bright chestnut; remainder of under surface light ashy grey, paler on the abdomen, the lower part of which is bright rufous, deepening into chestnut on the under tail-coverts; thighs slaty grey; under wing-coverts and axillaries light ashy grey, tipped with white and slightly washed with rufous, especially near the edge of the wing; greater series of under wing-coverts blackish, forming a small patch; quills dusky brown below, white at the base of the inner web; "bill black; feet

bright fulvous; iris hazel or dull orange" (*Gosse*). Total length 7·75 inches, culmen 0·6, wing 3·8, tail 3·75, tarsus 0·85.

*Adult female.* Similar to the male in plumage. Total length 7·25 inches, culmen 0·55, wing 3·4, tail 3·5, tarsus 0·8.

*Young in moult.* Marked with orange-buff spots on the end of the feathers; the throat orange-buff, with dusky margins to the feathers; otherwise like the adult.

The Jamaican Solitaire is found in the mountains of Jamaica.

| | | |
|---|---|---|
| *a*. Ad., *b*. Imm. sk. | Jamaica. | Hugh Cuming [C.]. |
| *c*. Ad. sk. | Jamaica. | Capt. Hamilton [P.]. |
| *d*. ♂ ad. sk. | Spanish town, Jamaica, Mar. 18, 1865 (*W. T. March*). | Smithsonian Institution [P.]. |

### 2. Myiadectes montanus.

Myiadestes montanus, *Cory, Bull. Nutt. Orn. Club,* vi. p. 130 (1881).

*Adult male.* Upper parts and two central tail-feathers slaty grey; primaries and secondaries brownish black, showing white near the base of the inner webs; outer webs of primaries and terminal portion of the outer webs of secondaries edged with grey; throat, crissum, and belly near the vent reddish brown, intermediate between that of *M. solitarius* and *M. sibilans*, but approaching nearer the colour of the former; rest of underparts pale grey; outer tail-feathers white, with black shaft, showing a dark tinge near the extremity of the outer web; second feather black, with the central portion of the terminal half white, the black narrowing to the extremity, leaving the tip white; third feather showing a triangular patch of white at the tip; rest of tail-feathers, except the two central ones, black; bill black; legs and feet pale; iris brown. Total length 7 inches, bill 0·38, wing 3·35, tail 3·38, tarsus 1. (*Cory, l. c.*)

Cory's Solitaire inhabits the island of S. Domingo, where it appears to represent *M. solitarius* of Jamaica.

### 3. Myiadectes genibarbis *.

Myiadestes genibarbis, *Swains. Nat. Libr.* x. p. 134, pl. xiii. (c. 1838); *Baird, Review Amer. B.* p. 423 (1864); *Sclater, P. Z. S.* 1871, p. 269; *id. & Salv. Nomencl. Av. Neotr.* p. 4 (1873); *Lawr. Proc. U.S. Nat. Mus.* i. pp. 53, 352, 486 (1878).
Myiadestes armillatus, *Bp. Consp.* i. p. 335 (1850, *nec Vieill.*).
Ptilogonys genibarbis, *Gray, Hand-l. B.* i. p. 366, no. 5580 (1869).

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* The following species has not been identified since Vieillot's time. If it is ever made out, the synonymy will be as follows:—

MYIADECTES ARMILLATUS.

Muscicapa armillata, *Vieill. Ois. Am. sept.* p. 69, pl. 42 (1802); *id. N. Dict. d'Hist. Nat.* xxi. p. 448 (1818).
Ptilogonys armillatus, *Gray, Gen. B.* i. p. 281 (1846); *id. Hand-l. B.* i. p. 366, no. 5577 (1869).
Myiadestes armillatus, *Baird, Review Amer. B.* p. 423 (1864).

*Hab.* Martinique (*Vieillot*).

*Adult female* (Dominica: F. A. Ober). General colour above dark slate-colour, the wing-coverts like the back; the greater series of the latter blackish, edged with slate-colour; primary-coverts black; quills black, edged with slaty grey, more broadly on the secondaries, all but the innermost of the latter being black in the centre of the outer web, grey at the base and again near the tip; centre tail-feathers dark slate-colour, the remainder black, with a small spot of white at the tip, increasing in extent towards the outermost, the two outer ones almost entirely white, with a blackish base and a dusky mark near the tip of the outer web; lores and base of nostrils black, with a tinge of rusty over the fore part of the eye; feathers under the eye black, this shade extending onto the ear-coverts, which are otherwise dark slate-colour, streaked with white; below the eye a white spot; fore part of cheeks white, forming a large spot; hinder part of cheeks ashy grey, washed with chestnut; chin white; throat and fore neck chestnut; remainder of under surface of body light ashy grey, becoming paler on the lower breast and abdomen; lower part of abdomen and under tail-coverts rufous, becoming deep chestnut on the under tail-coverts; thighs slaty grey; under wing-coverts and axillaries slaty grey, tinged with rusty; lower under wing-coverts dusky; quills dusky, white at the base of the inner web. Total length 7·25 inches, culmen 0·65, wing 3·5, tail 3·3, tarsus 0·9. (*Mus. Salvin & Godman.*)

The *female* differs from the male only in having a wash of brownish olive across the middle of the back. In the *young* each feather of the upper plumage terminates with black, and has an adjoining subterminal round spot of bright rufous; the feathers of the under surface are more rufous, with the terminal edge less distinctly marked with black; the throat and under tail-coverts are light rufous; the tail as in the adult. (*Lawrence, Bull. U.S. Nat. Mus.* i. p. 53.)

Swainson's Solitaire inhabits the islands of Dominica, Martinique, and Santa Lucia.

*a*. Ad. sk. Dominica (*Dr. Nicholls*). Smithsonian Institution.

### 4. Myiadectes sibilans.

Myiadestes sibilans, *Lawr. Proc. U.S. Nat. Mus.* i. pp. 188, 486 (1878); *Lister, Ibis*, 1880, p. 39.

*Adult female* (S. Vincent: F. A. Ober). General colour above black, washed with olive-brown on the lower back and rump, which are more slaty grey than the upper back; wing-coverts black, as also the quills, the secondaries grey at the base and near the end of the outer web; inner primaries with a concealed spot of white at the base of their outer web; upper tail-coverts dark slaty grey, inclining to blackish; centre tail-feathers dark slate-colour, margined with black, the remainder of the feathers black, dusky slate-colour on the inner web; the penultimate tail-feathers for the most part white, blackish for the greater part of the inner web and along

the outer web, so that the white forms a long wedge-shaped mark; the outermost tail-feather white, excepting the base of the inner web and a mark towards the end of the outer web; lores, sides of face, and ear-coverts black, the latter narrowly streaked with whitish shaft-lines; cheeks orange-rufous, paler and more rufous-white on the fore part of the cheeks, but not sufficient to form a white spot; throat and fore neck orange-chestnut, a little lighter on the chin, and separated from the cheeks by a narrow and scarcely perceptible line of black; breast light ashy grey, washed with orange-rufous on the lower parts; the abdomen light orange-rufous, deepening much on the under tail-coverts; thighs dark slaty grey; axillaries white, with grey bases; under wing-coverts dark slate-colour, tipped with white, the edge of the wing also white; quills dusky brown below, white at the base of the inner web. Total length 7·25 inches, culmen 0·6, wing 3·35, tail 2·85, tarsus 0·95.

Ober's Solitaire replaces the foregoing species in the island of S. Vincent.

### 5. Myiadectes elizabethæ.

Muscicapa elizabeth, *Lembeye, Aves Cuba*, p. 39, pl. 5. fig. 3 (1850).
Myiadestes elizabeth, *Cab. J. f. O.* 1856, p. 2; *Gundl. J. f. O.* 1861, p. 328; *Baird, Review Amer. B.* p. 425 (1864).
Ptilogonys elizabeth, *Gray, Hand-l. B.* i. p. 366, no. 5575 (1869).
Myiadestes elizabethæ, *Scl. & Salv. Ex. Orn.* p. 55, pl. 28 (1869); *id. Nomencl. Av. Neotr.* p. 4 (1873).

*Adult.* General colour above olive-brown, a little more dusky on the head, the rump and upper tail-coverts somewhat shaded with ashy; wing-coverts dusky brown, margined with the same colour as the back; primary-coverts and quills dark brown, margined with olive-brown like the back, rather brighter and more tawny on the quills, especially at the base of the secondaries; tail-feathers brown, margined with olive-brown, the centre feathers entirely dull olive-brown, the outer feathers tipped with white, which forms on the penultimate a wedge-shaped patch, the outermost one being ashy brown towards the end, with a white edging at the tip; feathers at base of forehead whitish; lores and feathers round the eye tawny buff; ear-coverts olive-brown, with narrow whitish shaft-lines; cheeks ashy like the sides of the neck, the fore part of the cheeks washed with tawny buff; throat white; fore neck and breast ashy, becoming white on the abdomen and under tail-coverts; thighs ashy; flanks washed with olive-brown; axillaries ashy, with a tinge of buff; under wing-coverts buff, with dusky bases; quills dusky brown below, buffy white at the base of the inner web. Total length 8 inches, culmen 0·6, wing 3·4, tail 3·3, tarsus 0·9.

Lembeye's Solitaire is confined to the island of Cuba.

*a*. Ad. sk. Cuba. Zoological Society.

### 6. Myiadectes obscurus.

Myiadestes obscurus, *Lafr. Rev. Zool.* 1839, p. 98; *Bp. Consp.* i. p. 330 (1850); *Cab. Mus. Hein.* Th. i. p. 54 (1850); *Scl. P. Z. S.* 1857, p. 213, 1859, pp. 364–376; *id. & Salv. Ibis*, 1859, p. 14, 1860, p. 39; *Scl. Cat. Amer. B.* p. 47; *Baird, Rev. Amer. B.* p. 430 (1864); *Scl. & Salv. Ex. Orn.* p. 49, pl. 25 (1869); *Sumichr. Mem. Bost. Soc. N. H.* i. p. 548 (1869); *Grayson, Proc. Bost. Soc. N. H.* xiv. p. 277 (1871); *Lawr. Mem. Bost. Soc.* ii. p. 273; *Scl. & Salv. Nomencl. Av. Neotr.* p. 4 (1874); *Baird, Brewer, & Ridgw. N. Amer. B.* i. p. 409 (1874).

Ptilogonys obscurus, *Gray, Gen. B.* i. p. 281 (1846); *id. Hand-l. B.* i. p. 366, no. 5574 (1869).

Myiadestes cæsius, *Licht. Nomencl. Av. Neotr.* p. 20 (1854).

Myiadectes obscurus, *Sclater, P. Z. S.* 1858, p. 302; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 40 (1879).

*Adult.* General colour above ruddy brown, a little more olivaceous on the hind neck and on the rump and upper tail-coverts; wing-coverts reddish brown, the inner median coverts with a slight orange tinge; greater and primary coverts dusky brown, externally reddish brown; quills dusky brown, externally orange-brown, except in the middle of the outer webs, where the blackish-brown colour of the quills encroaches; centre tail-feathers ashy grey, with a very tiny spot of white at the extreme tip, the remainder black, the third with a white spot at the end, the penultimate one with a wedge-shaped mark towards the tip, which is ashy, the outermost pale ashy brown, obliquely dark brown at the base of the inner web, with the tip and a long wedge-shaped mark on the inner web, white; head ashy grey, hoary on the base of the forehead and over the lores; eyelid creamy white; lores black, extending a little way under the eye; ear-coverts ashy grey, with narrow whitish shaft-lines; cheeks creamy white, the hinder part shading off into ashy grey; chin and upper throat creamy white, separated from the cheeks by a blackish moustachial line; lower throat and under surface of body ashy grey, with a few whitish shaft-lines on the fore neck; centre of abdomen white; flanks and sides of body washed with olive-brown, as also the thighs; under tail-coverts light ashy, with broad white margins; axillaries and under wing-coverts light fulvous brown, with paler tips, the wing-coverts more reddish brown near the base; quills dusky brown, light ochraceous buff near the base of the inner webs. Total length 8·2 inches, culmen 0·65, wing 3·95, tail 3·9, tarsus 0·8. (*Mus. Salvin & Godman.*)

Guatemalan examples appear to have the throat more ashy than in most of the Mexican specimens examined. The whiter throat of the latter, however, does not seem to be absolutely constant.

The Dusky Solitaire ranges from Guatemala to Southern Mexico and the Tres Marias Islands.

| | | |
|---|---|---|
| *a*. Ad. st. | Mexico. | Purchased. |
| *b*. Ad. sk. | Mexico. | Purchased. |

### 7. Myiadectes townsendi.

Ptilogonys townsendi, *Audub. B. Amer.* pl. 419. fig. 2; *id. Orn. Biogr.* v. p. 206 (1839); *Gray, Hand-l. B.* i. p. 366, no. 5572 (1869).
Myiadestes townsendi, *Audub. B. Amer.* 8vo, i. p. 243, pl. 69 (1839); *Cab. Arch. f. Naturg.* 1847, p. 208; *Scl. P. Z. S.* 1857, p. 5, 1858, p. 97; *Baird, B. N. Amer.* p. 321 (1858); *Scl. Cat. Amer. B.* p. 47, (1862); *Baird, Review Amer. B.* p. 429 (1864); *Coues, Ibis*, 1865, p. 60; *Cooper, Orn. Calif.* p. 134 (1879); *Coues, Key N. Am. B.* p. 117, fig. 57 (1872); *id. B. N.-West*, p. 93 (1874); *Baird, Brewer, & Ridgw. N. Amer. B.* p. 409 (1874); *Coues, B. Color. Vall.* p. 44 (1878); *Hensh. Zool. Expl. W. 100th Merid.* p. 231 (1878); *Ridgw. U.S. Nat. Mus.* no. 21, p. 12 (1881).
Culicivora townsendi, *DeKay, Nat. Hist. N. Y.* ii. p. 110 (1844).
Myiadectes townsendi, *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 40 (1879).

*Adult.* General colour above dull ashy grey, slightly varied with brown centres to the feathers of the head; lesser wing-coverts like the back; median and greater series brown, edged with the same colour as the back, the greater coverts narrowly tipped with white; bastard wing and primary-coverts brown, the latter lighter brown near the base; quills brown, with a patch of ochraceous buff near the base; the inner primaries with a second patch of ochraceous buff near the end of the feather, which is light ashy brown on the secondaries, the innermost of which are edged and tipped with whitish; two centre tail-feathers light brown, the remainder dark brown, the penultimate feather having a wedge-shaped spot of white at the tip, much larger on the outermost feather, where the greater part of the outer web is white, extending diagonally across the end of the inner web; round the eye a ring of white feathers, in front of which is a blackish loral spot; the lores and feathers above the front of the eye slightly tinged with rusty; ear-coverts dull ashy grey like the head; under the eye a shade of black; cheeks and throat hoary grey, lighter than the rest of the under surface, which is dull ashy grey, lighter on the centre of the breast and abdomen, the lower part of which is whitish; thighs ashy brown; under tail-coverts ashy brown, broadly edged with white; axillaries and under wing-coverts ashy brown, tinged with fulvous and tipped with white; quills dusky brown below, very pale tawny buff at the base of the inner web. Total length 8 inches, culmen 0·6, wing 4·4, tail 3·85, tarsus 0·8.

*Adult female.* Similar to the male in plumage. Total length 7·75 inches, culmen 0·6, wing 4·65, tail 3·7, tarsus 0·75.

*Young.* Speckled at first like a very young Thrush; each feather with a triangular or rounded spot of dull ochraceous or tawny, edged with blackish. (*Coues.*)

Townsend's Solitaire inhabits the Middle and Pacific provinces of the United States, but does not penetrate far into Mexico.

| | | |
|---|---|---|
| *a, b.* ♂ ♀ ad. sk. | West side of Rocky Mountains. | J. K. Lord, Esq. [P.]. |

| | | |
|---|---|---|
| *c*. Ad. sk. | West side of Rocky Mountains. | J. K. Lord, Esq. [P.]. |
| *d*, *e*. Ad. sk. | Oregon. | Lord Walsingham [P.]. |

### 8. Myiadectes ralloides.

Muscipeta armillata (*nec V.*), *Lafr. et D'Orb. Mag. de Zool.* 1837, p. 48.
Muscipeta ralloides, *D'Orb. Voy. Amér. mérid.* p. 322.
Ptilogonys griseiventer, *Tschudi, Arch. f. Nat.* 1844, p. 270; *id. Faun. Peruan., Aves*, pp. 7, 140 (1846); *Gray, Gen. B.* i. p. 281 (1846).
Myiadestes griseiventer, *Cab. Arch. f. Naturg.* 1847, p. 209; *Bp. Consp.* i. p. 336 (1850); *Cab. Mus. Hein.* Th. i. p. 55 (1850).
Myiadestes venezuelensis, *Sclater, Ann. Nat. Hist.* (2) xvii. p. 468 (1856); *id. P. Z. S.* 1857, p. 6, 1860, p. 64; *id. Cat. Amer. B.* p. 48 (1862); *Baird, Review Amer. B.* p. 427 (1864).
Myiadestes ralloides, *Scl. & Salv. Ex. Orn.* p. 53, pl. xxvii. (1869); *id. Nomencl. Av. Neotr.* p. 4 (1873).
Ptilogonys ralloides, *Gray, Hand-l. B.* i. p. 366, no. 5578 (1869).
Myiadectes ralloides, *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. (1879).

*Adult male* (San Esteban, Venezuela; A. Goering). General colour above warm orange-brown, richer on the lower back, rump, and upper tail-coverts; lesser wing-coverts like the back; greater coverts and primary-coverts dusky brown, margined with orange-brown, and the former tipped narrowly with pale orange-buff; quills dusky brown, externally edged with orange-brown; the secondaries conspicuously light fulvous at the base, succeeded by a black patch on the outer web of all but the innermost, which are almost entirely orange-brown; centre tail-feathers obscure reddish brown, the remainder dusky brown, externally washed with reddish brown, and having a tiny white spot at the tip; the two outer feathers ashy brown on the outer web, with a wedge-shaped patch of white, small on the penultimate but very large on the external feather; crown of head ashy, strongly washed with the same colour as the back, much lighter and clearer grey at the base of the forehead and over the lores; the latter dusky blackish; sides of face and ear-coverts, as well as the entire under surface of body, light slaty grey, washed with orange-brown on the lower flanks and thighs; the lower abdomen whitish; under tail-coverts slaty grey, edged with orange-brown, the long ones tipped with white; axillaries and under wing-coverts light slaty grey, tipped with white; quills dusky brown below, white at the base of the inner web; bill blackish, the lower mandible yellow; "iris dark or reddish brown" (*Salmon*). Total length 7 inches, culmen 0·55, wing 3·35, tail 2·85, tarsus 0·8. (*Mus. Salvin and Godman.*)

*Adult female.* Similar in plumage to the adult male. Total length 7 inches, culmen 0·55, wing 3·4, tail 3, tarsus 0·75.

*Young.* Mottled all over with tawny-rufous spots, margined with black; the abdomen and under tail-coverts whitish, mottled slightly with dusky bars.

The Andean Solitaire has rather a wide range in South America, occupying the eastern slopes of the Andes from the neighbourhood of Caracas to the valleys of Yungas in Bolivia.

### 9. Myiadectes unicolor.

Myiadestes unicolor, *Sclater, P. Z. S.* 1856, p. 299, 1857, pp. 5, 213, 1858, p. 97; *id. & Salv. Ibis*, 1860, p. 397; *Scl. Cat. Amer. B.* p. 47; *Baird, Review Amer. B.* p. 428 (1864); *Scl. & Salv. Ex. Orn.* p. 51, pl. 26 (1869); *Sumichr. Mem. Bost. Soc.* i. p. 548 (1869); *Scl. & Salv. Nomencl. Av. Neotr.* p. 4 (1873).
Ptilogonys unicolor, *Gray, Hand-l. B.* i. p. 366, no. 5574 (1869).
Myiadectes unicolor, *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 41 (1879).

*Adult.* General colour above slaty grey, with a slight tinge of olive here and there; wing-coverts like the back; median and greater coverts, as well as the primary-coverts, black, margined with slaty grey on the outer web; quills blackish brown, edged with olivaceous brown, the secondaries olivaceous brown at the base and towards the tip of the outer web, black in the middle of the feathers, forming a patch; the inner secondaries ashy like the back; two centre tail-feathers ashy grey; remainder of the feathers blackish, minutely tipped with ashy, the penultimate feather having a somewhat large white spot, the outermost ashy brown towards the tip, edged with white at the tip; a narrow line from the base of the bill to above the eye buffy white, as also a streak above and below the eye: lores blackish, and feathers below the eye also slightly blackish; ear-coverts slaty grey, with narrow whitish shaft-lines: throat light ashy; remainder of under surface of body slaty grey, rather lighter on the abdomen, the flanks being slightly washed with olive; under tail-coverts light ashy, edged with whitish; thighs slaty grey; axillaries light ashy, with a slight tinge of fulvous; under wing-coverts dark ashy, edged with dull fulvous; quills dusky brown, white near the base of the inner web. Total length 6·85 inches, culmen 0·55, wing 3·6, tail 3·25, tarsus 0·8.

The Grey Solitaire inhabits Central America, where it ranges from Southern Mexico to Guatemala.

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| *a*. Ad. sk. | Cordova, Mexico. | M. A. Sallé [C.]. |
| *b*. Ad. sk. | Mexico. | Purchased. |

### 10. Myiadectes melanops.

Myiadestes melanops, *Salv. P. Z. S.* 1864, p. 580, pl. 36; *Baird, Review Amer. B.* p. 426 (1866); *Lawr. Ann. Lyc. N. Y.* ix. p. 97 (1868); *Von Frantz. J. f. O.* 1869, p. 296; *Scl. & Salv. Nomencl. Av. Neotr.* p. 4 (1873).
Ptilogonys melanops, *Gray, Hand-l. B.* i. p. 366, no. 5576 (1869).
Myiadectes melanops, *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 42 (1879).

*Adult male.* General colour above slaty grey; the wing-coverts blackish like the back, edged with slaty grey; primary-coverts blackish; quills blackish, the primaries edged with ashy, the secondaries blackish, ashy grey at the base and near the tip of the outer web; tail-feathers dark slate-colour, the outer feathers ashy brown towards the end, which is narrowly margined with white; base of forehead, lores, and sides of face black, the fore part of cheeks and ear-coverts dark slate-colour; over the eye a shade of lighter ashy, forming a slight eyebrow; chin black; the remainder of the under surface light slaty grey, a little more dusky on the under tail-coverts; under wing-coverts and axillaries like the breast; quills dusky blackish below, white at the base of the inner web. Total length 6·25 inches, culmen 0·6, wing 3·3, tail 2·85, tarsus 0·8.

*Young.* Differs from the adults in being mottled all over with spots of ochraceous buff, each spot margined with a blackish line; the spots on the under surface rather paler. (*Mus. Salvin and Godman.*)

The Black-faced Solitaire inhabits Costa Rica, whence it ranges into Veragua.

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|---|---|---|
| *a.* ♂ ad. sk. | Calovevora, Veragua (*Arcé*). | Osbert Salvin, Esq. |
| *b.* Ad. sk. | Costa Rica. | Mr. Van Patten [C.]. |

### 11. Myiadectes leucotis.

Ptilogonys leucotis, *Tschudi, Arch. f. Naturg.* 1844, p. 270; *id. Faun. Peruan.* p. 22, pl. 7. fig. 2 (1845); *Gray, Gen. B.* i. p. 281 (1846); *id. Hand-l. B.* i. p. 366, no. 5579 (1869).

Myiadestes leucotis, *Bp. Consp.* i. p. 336 (1850); *Sel. & Salv. Nomencl. Av. Neotr.* p. 4 (1873).

*Adult.* Cinnamon colour, the head and neck black; back, rump, and upper wing-coverts cinnamon; a broad white band stretching from the angle of the bill to the ear-coverts; throat, breast, abdomen, and vent black; flanks rufous; primary quills black, the base of the inner web white; the outer webs of the secondaries rufescent, the inner ones blackish; six inner tail-feathers black, the outer ones white at the tip; upper mandible black, the lower one yellow; feet intense black; iris fiery red. Total length 9 inches. (*Tschudi.*)

The White-faced Solitaire inhabits Peru.

## 59. CICHLOPSIS.

? Turdampelis, *Less. Echo du Monde Savant*, 1844, p. 156. Type.
Cichlopsis, *Cab. Mus. Hein.* Th. i. p. 54 (1850) ..... C. leucogenys.
Myiocichla, *Bp. C. R.* xxxviii. p. 6 (1854) ..... C. leucogenys.

Cf. *Baird, Review Amer. B.* pp. 433–435.

*Range.* Confined to South America.

*Key to the Species.*

*a*. Upper surface rufous-brown; throat deep rufous; fore neck rufous-brown ..... *leucogenys*, p. 378.
*b*. Upper surface dark olivaceous brown; throat orange-rufous, sharply defined by the fore neck and chest, which are olivaceous brown ..... *gularis*, p. 378.

### 1. Cichlopsis leucogenys †.

? Turdampelis lanioides, *Less. Echo du Monde Savant*, 1844, p. 156.
? Turdampelis rufococcyx, *Less. Descr. Mamm. et Ois.* p. 324 (1847).
Cichlopsis leucogenys, *Cab. Mus. Hein.* Th. i. p. 54, note (*ex Licht. MS. in Mus. Berol.*).
Myiadestes leucotis, *Bp. Consp.* i. p. 336 (1850, *nec Tschudi*).
Myiocichla ochrata, *Bp. C. R.* xxxviii. p. 6 (1854).
Cichlopsis aurantia, *Gray, List Gen. B.* p. 43 (1855).
Cichlopsis leucogonys, *Sclater, P. Z. S.* 1857, p. 6, 1858, p. 542; *id. Cat. Amer. B.* p. 48; *Baird, Review Amer. B.* p. 434 (1866); *Pelz. Orn. Bras.* p. 421 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 4 (1873).
Ptilogonys leucogonys, *Gray, Hand-l. B.* i. p. 367, no. 5582 (1869).

*Adult.* General colour above rufous-brown, the wing-coverts like the back; quills sepia-brown, externally of the same colour as the back; tail-feathers dull rufous-brown, with a pale fulvescent shade at the tip of the inner web of the two outermost; sides of face also rufous-brown, a little clearer on the lores and rather more dusky on the ear-coverts; throat brighter and more ferruginous; lower throat and fore neck light rufous-brown, with a few indications of yellowish shaft-lines; breast and abdomen ashy, slightly whiter on the latter; sides of body fulvous-brown; under tail-coverts light fulvous; axillaries ashy; under wing-coverts fulvous, whiter on the edges; the lower coverts near the edge of the wing light brown; quills light brown below, fulvous near the base of the inner web; bill blackish, the under mandible yellowish white. Total length 8 inches, culmen 0·7, wing 4·05, tail 4·7, tarsus 0·9. (*Mus. P. L. Sclater.*)

The Rufous-brown Solitaire is only known from Brazil.

### 2. Cichlopsis gularis.

Cichlopsis gularis, *Salvin & Godman, Ibis*, 1882 (January).

*Adult male* (type of species). General colour above dark olivaceous brown, the wing-coverts like the back; greater and primary-coverts as well as the quills dark sepia-brown, externally like the back, a little more rufescent on the primaries; tail-feathers dull reddish brown, all but the centre ones with a narrow edging of reddish buff at the end of the inner web, a little more extended on the outermost feather; lores dusky; ear-coverts dull olivaceous brown, with a few rufous shaft-lines; eyelids and feathers below the eye rufous; throat orange-rufous; lower throat and fore neck dull olivaceous brown,

† *Cf.* Sundev. Av. Meth. Tent., App. p. 3*.

as also the sides of the body, which are lighter; centre of the body ashy, becoming whiter on the lower abdomen; thighs olive-buff; under tail-coverts light ochraceous buff; axillaries ochraceous buff; under wing-coverts light brown, edged with ochraceous; lower coverts near the edge of the wing dusky brown, forming a patch; quills light brown below, ochraceous buff near the base of the inner web; bill blackish, the lower mandible yellow. Total length 7·75 inches, culmen 0·75, wing 4·15, tail 3·75, tarsus 0·85. (*Mus. Salvin and Godman.*)

*Adult female.* Similar to the male, but a little duller in colour, especially below, where the throat is lighter orange-rufous. Total length 8 inches, culmen 0·8, wing 4·25, tail 3·8, tarsus 0·9. (*Mus. Salvin and Godman.*)

The Orange-throated Solitaire replaces *C. leucogenys* in the mountains of Demerara.

## 60. PLATYCICHLA.

Type.
Platycichla, *Baird, Review Amer. B.* p. 32 (1864) ..... P. brevipes.

General appearance that of *Cichlopsis*; the bill rather longer and much more attenuated at the end; the lower mandible much weaker and narrower, the toes perhaps a little more deeply cleft; the feet larger, but similarly proportioned; the claws longer and less curved. The wings and tail are similar, the latter rather shorter; the outer quill one third the second. Inside and bases of quills coloured as in *Planesticus*, and throat similarly streaked. (*Baird, l. c.*)

*Range.* Confined to Brazil.

### 1. Platycichla brevipes.

Platycichla brevipes, *Baird, Review Amer. B.* pp. 32, 436 (1864).
Ptilogonys brevipes, *Gray, Hand-l. B.* i. p. 367, no. 5583 (1869).

The upper parts are greenish olive, with an appearance of darker edges to the feathers of the head and back. The underparts are yellowish olive; crissum paler; the middle of the belly and anal region whitish ash; the throat-feathers with shaft-streaks and arrow-spots of dusky, obscurely indicated on the jugulum; under wing-coverts cinnamon; middle coverts with an occasional cinnamon spot. Total length 8·40, wing 4·45, tail 3·80, bill from forehead 0·8, tarsus 0·95. (*Baird, l. c.*)

I am unable to give any further information respecting this species, which still remains apparently unknown in European collections. It was described by Professor Baird from a Brazilian skin in the Smithsonian Institution, and there are two specimens in the Museum of the Philadelphia Academy. Although Prof. Baird expressly states that it is a Thrush, all writers on the Turdidæ since his time have scarcely mentioned the species. It is not even mentioned in Mr. Seebohm's volume.

## Subfamily V. PTILONORHYNCHINÆ.

The Bower-birds have been placed in various positions in the class Aves. By some systematists they have been considered to be Thrushes, by others Birds of Paradise, while Professor Sundevall has associated them with the Shrikes. It is quite certain that, wherever they are placed in the natural system, they are sure to be more or less aberrant, and will have to stand, to a great extent, alone, as is so often the case with Australian forms of bird-life. Their habits seem to me to associate them with the Ground-Thrushes and Babblers, of which they will form an outlying group with affinities towards the Crows and Paradise-birds.

*Key to the Genera.*

*a.* Bill higher than it is broad at nostrils.
  *a'.* With a lateral subterminal notch on the upper mandible.
    *a''.* Nostrils entirely covered with silky feathers, dense and recurved so as to hide the base of the bill ..... 61. PTILONORHYNCHUS, [p. 380.
    *b''.* Nostrils exposed, not completely hidden by plumes.
      *a'''.* Nostrils overhung by scanty plumes; bill very stout, its depth at nostrils being equal to the length of the inner toe without claw ..... 62. ÆLURŒDUS, p. 382.
      *b'''.* Nostrils oval, with a posterior membrane on which the feathers of the forehead encroach; bill longer and thinner, its depth at nostrils much less than inner toe ..... 63. CHLAMYDODERA, [p. 388.
  *b'.* With a distinct festoon in the upper mandible, formed by two notches on the edge 64. SCENOPÆUS, p. 394.
*b.* Bill at nostrils as high as it is broad.
  *c'.* Nostrils entirely hidden by plumes; sexes alike; plumage of head and neck ordinary ..... 65. AMBLYORNIS, p. 394.
  *d'.* Nostrils exposed; sexes strikingly different; plumage of head and neck dense and velvety ..... 66. SERICULUS, p. 395.

### 61. PTILONORHYNCHUS.

Type.
Ptilonorhynchus, *Kuhl, Beitr. zur Zool.* p. 150 (1820) .. P. violaceus.

*Range.* Confined to Australia.

### 1. Ptilonorhynchus violaceus *.

Pyrrhocorax violaceus, *Vieill. N. Dict.* vi. p. 569 (1816).
Ptilonorhynchus holosericeus, *Kuhl, Beitr. z. Zool.* p. 150 (1820); *Wagler, Syst. Av.*, Ptilonorhynchus, sp. 1 (1827); *Gould, B. Austr.* fol. iv. pl. 10 (1838); *id. Handb. B. Austr.* i. p. 442 (1865); *Ramsay, Ibis*, 1866, p. 330; *Sclater in Wolf's Zool. Sketches*, 2nd series, pl. xxviii. (1867); *Gray, Hand-l. B.* i. p. 294, no. 4335 (1869).
Satin Grakle, *Lath. Gen. Hist.* iii. p. 171 (1822).
Kitta holosericea, *Temm. Pl. Col.* ii. pls. 395, 422 (1826); *Less. Traité d'Orn.* p. 350, pl. 46. fig. 1 (1831).
Ptilonorhynchus macleayii, *Vig. & Horsf. Tr. Linn. Soc.* xv. p. 263 (1827, *ex Lath. MSS.*).
Ptilonorhynchus squamulosus, *Wagler, Syst. Av.*, Ptilon. sp. 3 (1827, *ex Illiger, MSS.*).
Ptilorhynchus holosericeus, *Swains. Classif. B.* ii. p. 271 (1837); *Gray, Gen. B.* ii. p. 325 (1846); *Bp. Consp.* i. p. 370 (1850); *Cab. Mus. Hein.* Th. i. p. 213 (1850); *Schl. Mus. Pays-Bas, Coraces*, p. 117 (1867); *Ramsay, Proc. Linn. Soc. N. S. Wales*, ii. p. 187 (1878).
Ptilorhynchus violaceus, *Elliot, Monogr. Parad.* pl. xxviii. (1873).

*Adult male.* General colour above and below purplish black, the feathers having concealed greyish bases; upper tail-coverts black, broadly bordered and tipped with purple: quills and tail black, the feathers edged with purple; "bill bluish horn, passing into yellow at the tip; legs and feet yellowish white; iris beautiful light blue, with a circle of red round the pupil" (*Gould*). Total length 12·5 inches, culmen 1·4, wing 6·6, tail 4·5, tarsus 2·15.

*Adult female.* Different from the male. General colour above greyish green, with a shade of bluish on the edges of the feathers, the rump and upper tail-coverts greener than the back; lesser and median wing-coverts like the back, the latter edged with whity brown along the tips; greater and primary wing-coverts reddish brown, the former with a slight shade of bluish green, the innermost also tipped with a whity-brown bar; quills dusky brown, externally reddish brown, the innermost secondaries shaded with bluish and tipped with a bar of whity brown like the secondaries; tail-feathers golden brown, with a slight shade of bluish ashy on the centre feathers; lores and feathers round the eye a little browner than the head; ear-coverts and cheeks ashy brown, thickly streaked with yellowish-buff shaft-stripes; throat ashy brown, with a tinge of greenish

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* PTILONORHYNCHUS RAWNSLEYI.

Sericulus rawnsleyi, *Diggles, Orn. Austr.* pl. .
Ptilonorhynchus rawnsleyi, *Gould, Suppl. B. Austr.* pl. 34; *Newton, Ibis*, 1868, p. 348; *Elliot, Monogr. Parad.* pl. xxix. (1873); *Ramsay, Proc. Linn. Soc. N. S. Wales*, ii. p. 187 (1876).

This supposed species, which is like a Satin Bower-bird with the wings of a Regent-bird (*Sericulus melinus*), appears to be an undoubted hybrid between these two species. Only one specimen has as yet been found; and good figures of it have been given both by Gould and Elliot (*l. c.*).

grey, and slightly mottled with dusky greenish margins to the feathers; remainder of the under surface pale yellowish, the feathers all mottled with bars of blackish brown, tinged with bluish green, these bars less pronounced on the abdomen and under tail-coverts, the lower abdomen being uniform yellowish; axillaries pale greenish barred with dusky; under wing-coverts yellow, barred with dusky brown; quills dusky below, bright yellow at the base and on the inner web; "bill dark horn-colour; feet yellowish white, tinged with olive; irides of a deeper blue than in the male, and with only an indication of the red ring" (*Gould*). Total length 12 inches, culmen 1·3, wing 6·2, tail 4·6, tarsus 1·7.

*Young male.* Resembles the female at first, but is generally to be distinguished by a few purplish-black feathers appearing on the head and back or on the quills. The body-plumes appear to be acquired by a direct moult; but the quills and tail-feathers become black by a change in the colour of the feather itself.

The Satin Bower-bird inhabits New South Wales, and ranges throughout Eastern Australia as far as Rockingham Bay and Port Denison.

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|---|---|---|
| *a.* ♂ ad. sk. | Australia. | Linnean Society [P.]. (Type of *P. macleayi.*) |
| *b, c.* ♂ imm. sk. | Australia. | Zoological Society. |
| *d.* ♂ juv. sk. | Australia. | Gould Collection. |
| *e, f.* ♂ ♀ ad. sk. | Clarence River. | Sydney Museum. |
| *g.* ♂ ad. sk. | New South Wales. | Gould Collection. |
| *h.* ♂ ad. sk. | Australia. | Rev. Augustus Strong [P.]. |
| *i, k.* ♂ ♀ ad. sk. | Queensland (*J. T. Cockerell*). | F. Godman and O. Salvin, Esqrs. [P.]. |

## 62. ÆLURŒDUS.

Type.
Ailurœdus, *Cab. Mus. Hein.* Th. i. p. 213 (1850) ..... Æ. viridis.

*Range.* Confined to Australia and the Papuan group of islands.

*Key to the Species.*

*a.* Crown of head mottled; ear-coverts black; tail-feathers tipped with white.
  *a'.* Head black, spotted with ovate marks of reddish buff.
    *a''.* Nape spotted like the head ..... *melanotis*, p. 383.
    *b''.* Nape black ..... *arfakianus*, p. 384.
  *b'.* Head brown, the feathers margined with black *maculosus*, p. 385.
*b.* Crown of head uniform, green; ear-coverts green, mottled with dusky black; tail-feathers tipped with white ..... *viridis*, p. 385.
*c.* Crown of head uniform, brown; ear-coverts white, spotted with black; tail not tipped with white; hind neck yellowish buff, mottled with large triangular black spots.

*c'*. Crown olive-brown; throat white, distinctly spotted with black; spots on underparts large ..... *buccoides*, p. 386.
*d'*. Crown blackish brown; throat white, with only a few black dots; spots on under surface very small..... ..... *stonii*, p. 387.

### 1. Ælurœdus melanotis.

Ptilonorhynchus melanotis, *Gray, P. Z. S.* 1858, pp. 181, 194; *id. Cat. B. New Guinea*, pp. 37, 59 (1859); *id. P. Z. S.* 1861, p. 436; *Rosenb. J. f. O.* 1864, p. 122 (pt.); *Finsch, Neu-Guinea*, p. 173 (1865); *Rosenb. Reis. n. Zuidoostereil.* p. 47 (1867); *Gray, Hand-l. B.* i. p. 294, no. 4338 (1869)[1]; *Pelz. Verh. zool.-bot. Gesellsch. Wien*, 1872, p. 428.

Ptilorhynchus melanotis, *Schlegel, Mus. Pays-Bas, Coraces*, p. 118, (1867); *id. N. T. D.* iv. p. 51 (1871, pt.); *Giebel, Thes. Orn.* iii. p. 370 (1877).

Ailurœdus melanotis, *Meyer, Sitz. k. Akad. Wissensch. Wien*, lxix. p. 82 (1874); *Gould, B. New Guinea*, pt. i. (1875)[3].

Ælurœdus melanotis, *Elliot, Monogr. Parad.* pl. xxxv. (1873); *Scl. Ibis*, 1874, p. 416; *Salvad. Ann. Mus. Civic. Genov.* ix. p. 193 (1876); *id. P. Z. S.* 1878, p. 99[2]; *D'Alb. & Salvad. Ann. Mus. Civic. Genov.* xiv. p. 114 (1879); *D'Albert. Nuova Guinea*, p. 588 (1880); *Salvad. Orn. della Papuasia*, p. 671 (1881).

*Adult male* (type of species). General colour above bright grass-green, slightly shaded with blue on the wing-coverts and primaries; the median and greater wing-coverts and the secondaries tipped with buffy white; quills dull brown on the inner webs; tail dull grass-green, blackish on the inner webs of the outer feathers, all the feathers rather broadly tipped with white; head and neck fulvous, mottled with black, the feathers being mostly of the latter colour, with a large oval spot of fulvous near the tip, very much larger on the hinder neck; lores and a line of feathers above and below the eye buffy whitish; behind the eye a bare patch; ear-coverts black; rest of the sides of the face buffy white, barred with narrow crescentic cross lines of black; the fore neck and chest yellowish white, all the feathers dark at base and distinctly edged with black, giving a very strongly mottled appearance; rest of the under surface of the body yellowish buff, slightly inclining to fawn-buff, the feathers with narrow whitish shaft-lines, the breast mottled with subterminal cross lines of blackish; sides of the body washed with green, with rather broad mesial streaks of white on the flank-feathers; under wing-coverts yellowish buff, tinged with green along the edge of the wing; many of the abdominal plumes, when lifted, exhibiting a bluish shade underneath, this being also seen on the lower surface of the tail. Total length 12·5 inches, culmen 1·6, wing 6·65, tail 5·1, tarsus 1·85.

*Adult female*. Similar to the male, but more distinctly greenish underneath; each feather with a terminal spot of brighter green, the lower flanks washed with bluish green; spots on secondaries

very large and distinct; mantle varied with arrow-shaped central markings of yellowish buff to all the feathers. Total length 13·3 inches, culmen 1·45, wing 6·1, tail 5·2, tarsus 1·8.

The Black-cheeked Cat-bird inhabits the Aru Islands.

| | | |
|---|---|---|
| *a*. ♂ ad. st. | Aru Islands. | A. R. Wallace, Esq. (Type of species.) |
| *b*. ♀ ad. sk. | Aru Islands[1]. | A. R. Wallace, Esq. [C.]. |
| *c*. Ad. sk. | Wokan, Aru Islands[2] (*J. Murray*). | Voyage of H.M.S. 'Challenger.' |
| *d*, *e*. Ad. sk. | Aru Islands[3] (*J. Cockerell*). | Gould Collection. |

## 2. Ælurœdus arfakianus.

Ptilonorhynchus melanotis, pt., *Rosenb. J. f. O.* 1864, p. 122.
Ptilorhynchus melanotis, pt., *Schl. N. T. D.* iv. p. 51 (1871).
Ælurœdus melanotis (*nec Gray*), *Sclater, P. Z. S.* 1873, p. 697; *Elliot, Monogr. Parad. Intr.* p. xxii (1873); *Sclater, Ibis*, 1874, p. 416.
Ailurœdus arfakianus, *Meyer, Sitz. k. Akad. Wiss. Wien*, lxix. p. 82 (1874); *Sclater, Ibis*, 1874, p. 416; *Gould, B. New Guinea*, part i. (1875).
Ælurœdus arfakianus, *Salvad. Ann. Mus. Civic. Genov.* ix. p. 193 (1876), x. p. 151 (1877); *id. P. Z. S.* 1878, p. 99; *D'Albert. Nuova Guinea*, p. 581 (1880); *Salvad. Orn. della Papuasia*, p. 673 (1881).
Ptilorhynchus arfakianus, *Giebel, Thes. Orn.* iii. p. 370 (1877).
Ptilonorhynchus arfakianus, *Rosenb. Malay. Arch.* p. 554 (1879).

*Adult*. Feathers of the head and neck black, ornamented with pale fulvous subterminal spots; nape black; feathers of the upper back blackish, fulvescent in the middle; the remainder of the back, rump and upper tail-coverts, upper surface of wings and of tail black; lores, cheeks, and sides of neck whitish buff, the edges of the feathers blackish; a large spot on the ear-coverts black, with another similar, though smaller, one at the base of the lower mandible; fore-neck blackish, the feathers ornamented in the middle by a lanceolate fulvous spot; upper breast and sides greenish, each feather having a lanceolate fulvous spot, surrounded with dusky towards the tip; lower breast, abdomen, and under tail-coverts ochre-yellow and unspotted, more or less washed with greenish; wings externally green, the median and greater coverts, as well as the inner secondaries, having a large yellowish-white spot at the tip; quills dusky blackish on the inner web, bluish on the outer web of the primaries; edge of wing yellowish green; under wing-coverts whitish, varied with dusky and greenish; tail green above, dusky below, tinged with blue, with a broad white tip; "bill yellowish; feet lead-colour; iris blood-red" (*D'Albertis*). Total length 13·5 inches, culmen 1·15, wing 6·3, tail 5, tarsus 1·7. (*Salvadori*.)

The Arfak Cat-bird inhabits the Arfak mountains, in North-western New Guinea, and is supposed also to inhabit Mysol.

### 3. Ælurœdus maculosus.

Ælurœdus maculosus, *Ramsay, P. Z. S.* 1874, p. 601; *Gould, B. New Guinea*, part 1 (1875); *Ramsay, Proc. Linn. Soc. N. S. Wales*, ii. p. 187 (1876).

*Adult.* General colour above green; the wing-coverts like the back, with obscure yellowish spots at the ends of the median and greater coverts; quills dusky blackish, externally green like the back, the primaries bluish on their outer webs, the innermost secondaries tipped with a spot of yellowish white; tail-feathers green, dusky blackish on the inner web, all but the two centre ones barred along the tip with white; head ochreous brown, mottled all over with blackish edges to the feathers; the feathers of the hind neck and mantle greenish, mottled with a spot of pale ochreous or yellowish white; lores bluish white tinged with yellow; feathers above and below the eye whitish, the former having blackish tips to some of the feathers; ear-coverts black, with a streak of whity brown tinged with green along the upper edge; chin and a spot at the base of the cheeks black; remainder of cheeks yellowish white, the feathers mottled with dusky-brown tips; sides of neck ashy, tinged with green and mottled with brown edges; behind the ear-coverts and on the lower neck a whitish shade, forming an indistinct patch; throat ashy, mottled with greenish-brown edges to the feathers; remainder of under surface spotted, the feathers having a large ovate mark of white in the centre, and being broadly edged with greenish brown, these margins less distinct on the abdomen, which is consequently whiter; thighs ashy, washed with green, with a subterminal bar of yellow; under wing-coverts yellowish, with an indistinct bar of green across the middle of the feather; axillaries green, with yellowish tips; under wing-coverts dusky, tipped with yellowish white and washed with bluish green; edge of wing yellow; quills dusky below, whitish towards the base of the inner web. Total length 11 inches, culmen 1·3, wing 5·9, tail 4·1, tarsus 1·85.

The Queensland Cat-bird was first found in Queensland, in the mountain-ranges near Cardwell, at Rockingham Bay; but, according to Mr. Ramsay, it is found in Port Denison and the Wide-Bay district, as well as in the interior province and Victoria.

*a.* Ad. sk. Rockingham Bay (*Waller*). Gould Collection.

### 4. Ælurœdus viridis.

Green Grakle, *Lath. Ind. Orn. Suppl.* ii. p. 129 (1801); *id. Gen. Hist.* iii. p. 168 (1822).

Gracula viridis, *Lath. Ind. Orn. Suppl.* ii. p. xxviii (1801); *Shaw, Gen. Zool.* vii. p. 473 (1809).

Lanius crassirostris, *Paykull, Nova Acta Ac. Upsala*, vii. p. 282, Taf. 10 (1810).

Varied Roller, *Lath. Gen. Hist.* iii. p. 83 (1822).

Kitta virescens, *Temm. Pl. Col.* ii. pl. 396 (1826); *Wagl. Syst. Av.*, Ptilon. sp. 3 (1827).
Ptilonorhynchus smithii, *Vig. & Horsf. Tr. Linn. Soc.* xv. p. 264 (1827, *ex Lath. MSS.*); *Gould, B. Austr.* iv. pl. ii. (1838); *Gray, Gen. B.* ii. p. 325 (1846).
Ptilorhynchus smithii, *Bp. Consp.* i. p. 370 (1850); *Schl. Mus. P.-B., Coraces*, i. p. 294, no. 4336 (1867).
Ailurœdus smithii, *Cab. Mus. Hein.* Th. i. p. 213 (1850); *Gould, Handb. B. Austr.* i. p. 446 (1865).
Ælurœdus crassirostris, *Selater, Ibis*, 1868, p. 501; *Elliot, Monogr. Parad.* pl. xxxiv. (1873); *Ramsay, Proc. Linn. Soc. N. S. Wales*, ii. p. 187 (1878).

*Adult.* Above bright grass-green, with a greyish-white patch on the side of the lower neck; primaries slightly shaded externally with bluish, the inner webs of the quills greyish brown; median and greater wing-coverts, as well as the secondaries, tipped with yellowish white; tail-feathers bright grass-green, inclining to greyish black on the inner web, and tipped with white, more largely on the inner web; head and neck green, rather more yellowish than the back, the feathers bluish underneath when lifted, the hind neck and sides of the neck, as well as the mantle, slightly streaked with minute shaft-lines of buffy white; sides of face dull olive-greenish, including the ear-coverts, which have a dull sort of silvery lustre; round the eye a ring of whitish feathers; the fore part of the cheeks, feathers below the eyes and on the malar line, slightly spotted with black; throat dull greyish, slightly washed with olive-green and minutely spotted with white; rest of under surface of body dull olive-greenish, all the feathers mesially streaked with a distinct lanceolate spot of white; centre of the belly, vent, and under tail-coverts uniform yellowish; under wing-coverts whitish, barred across with ashy grey and slightly washed with green, especially on the edge of the wing; "bill light horn-colour; feet whitish; iris brownish red" (*Gould*). Total length 12 inches, culmen 1·25, wing 6·35, tail 5, tarsus 1·95.

The Common Cat-bird is found in New South Wales, extending to the Wide-Bay district in Eastern Australia.

| | | |
|---|---|---|
| *a.* Ad. sk. | Australia. | Linnean Society [P.]. (Type of *P. smithii.*) |
| *b.* Ad. st. | Australia. | |
| *c.* Ad. st. | New South Wales. | |
| *d.* Ad. sk. | Australia. | Gould Collection. |
| *e.* Ad. sk. | Northern Queensland. | Gould Collection. |
| *f, g.* Ad. sk. | Queensland (*J. T. Cockerell*). | F. Godman and O. Salvin, Esqrs. [P.]. |

### 5. Ælurœdus buccoides.

Kitta buccoides, *Temm. Pl. Col.* 575 (1835); *id. Tabl. Meth. Pl. Col.* p. 10 (1840); *S. Müll. Verh. Nat. Gesch. Land- en Volkenk.* p. 22 (1839–44); *Rosenb. J. f. O.* 1864, p. 122.
Cissa buccoides, *Gray, Gen. B.* iii. *App.* p. 14 (1849).
Ptilorhynchus buccoides, *Bp. Consp.* i. p. 370 (1850); *Wall. P. Z. S.*

1862, p. 165; *id. Ann. & Mag. Nat. Hist.* (3) xi. p. 57 (1863); *Schlegel, Mus. P.-B., Coraces*, p. 118 (1867); *id. N. T. D.* iv. p. 49 (1871); *Gieb. Thes. Orn.* iii. p. 370.

Ptilonorhynchus buccoides, *Gray, P. Z. S.* 1858, p. 194; *id. Cat. B. New Guinea*, p. 37 (1859); *id. P. Z. S.* 1861, p. 436; *Finsch, Neu-Guinea*, p. 173 (1865); *Gray, Hand-l. B.* i. p. 294, no. 4337 (1869); *Rosenb. Malay Arch.* p. 554 (1879).

Ailurœdus buccoides, *Gould, B. New Guinea*, pt. i. (1875); *Salvad. Ann. Mus. Civic. Genov.* vii. p. 780 (1875).

Æluroedus buccoides, *Elliot, Monogr. Parad.* pl. xxxvi. (1873); *Sel. P. Z. S.* 1873, p. 697; *Salvad. Ann. Mus. Civic. Genov.* ix. p. 193 (1876), x. p. 152 (1877); *D'Albert. & Salvad. op. cit.* xiv. p. 114 (1879); *D'Albert. Nuova Guinea*, pp. 581, 588 (1880); *Salvad. Orn. della Papuasia*, p. 675 (1881).

*Adult.* Above bright grass-green, the wings uniform with the back, the primaries blackish, externally bright green, the secondaries slightly shaded with bluish on the outer web, the innermost minutely tipped with yellowish buff; tail duller green, narrowly tipped with white on the inner web of the outer feathers; crown of head olive-brown, the hinder neck as well as the sides of the latter black, streaked with yellowish buff, this colour occupying the basal part of the feather, the black confined to a large subterminal spot, but being the dominant colour of these parts; the mantle also slightly mottled with yellowish buff, with which many of the feathers are barred, some few also tipped with black; lores scantily feathered with brown plumelets; eye-ring buff; behind the eye a bare space; sides of face buff, everywhere mottled with black spots, the hinder part of the ear-coverts entirely black, some of the cheeks also spotted with white; throat buffy white, the chin and lower throat spotted with black; rest of under surface light fawn-buff, everywhere largely spotted with ovate black markings, these spots less on the abdomen and absent on the under wing- and tail-coverts, which are uniform; the breast, flanks, and thighs obscurely washed with green, some of the spots on the lower flanks being green also. Total length 10 inches, culmen 1, wing 4·85, tail 3·5, tarsus 1·35.

The Barbet-like Cat-bird is known from New Guinea, Salawatti, Waigiou, and Batanta.

| | | |
|---|---|---|
| *a*. Ad. st. | Salawatti. | A. R. Wallace, Esq. [C.]. |
| *b*. Ad. sk. | Sailolo, Salawatti (*Hoedt*). | Gould Collection. |
| *c*. Ad. st. | New Guinea. | A. R. Wallace, Esq. [C.]. |
| *d*. Ad. sk. | New Guinea. | A. R. Wallace, Esq. [C.]. |
| *e*. Ad. sk. | New Guinea. | Gould Collection. |

## 6. Ælurœdus stonii.

Æluroedus stonii, *Sharpe, Nature*, Aug. 17, 1876, p. 339; *Salvad. Ann. Mus. Civic. Genov.* ix. p. 193 (1876); *Sharpe, Pr. Linn. Soc.* xiii. p. 495 (1877); *Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 268 (1879), iv. p. 97 (1879); *Salvad. Orn. della Papuasia &c.* p. 678 (1881); *Gould, B. New Guinea*, part xii. (1881).

*Adult* (type of species). General colour above bright green, some

of the feathers tinged with blue; wings green, like the back, the inner webs dusky brown, the primaries externally washed with yellow, the secondaries tipped with the latter colour; tail green, blackish on the inner webs of the outermost rectrices, which are tipped with white; head dark brown, slightly washed with olive; hind neck yellowish buff, mottled with black centres to the feathers, those adjoining the mantle spotted with green; sides of face and throat pure white, with a few tiny spots of black on the ear-coverts, larger on the sides of the neck; rest of under surface of body ochraceous buff, the fore neck and chest minutely spotted with green, the flanks also with a few tiny spots of the latter colour; under wing-coverts yellowish buff, the edge of the wing washed with green. Total length 9·3 inches, culmen 1·15, wing 5·05, tail 3·5, tarsus 1·55.

Stone's Cat-bird has only been received from South-eastern New Guinea, where it appears to be resident.

| | | |
|---|---|---|
| *a*. Ad. sk. | Laloki River, S.E. New Guinea. | O. C. Stone, Esq. [C.]. (Type of species.) |
| *b*. Ad. sk. | Interior of S.E. New Guinea (*Goldie*). | Gould Collection. |

## 63. CHLAMYDODERA.

Type.

Calodera, *Gould, P. Z. S.* 1836, pp. 106, 145 (*nec Naum.*) ..... C. maculata.
Chlamydera, *Gould, B. Austr.* part i. (cancelled, 1837) C. maculata.
Callidera, *Agassiz, Nomencl. Zool. Ind. Univ.* p. 58 (1846, *nom. emend.*).
Chlamydodera, *Agassiz, tom. cit.* p. 82 (1846, *nom. emend.*).

*Range.* Confined to Australia and South-eastern New Guinea.

*Key to the Species.*

*a*. With a band of bright lilac feathers on the nape.
  *a'*. Upper surface mottled all over with reddish spots or bars at the tips of the feathers; throat and sides of body with spots or bars of dusky brown.
    *a''*. Head rufous-brown, varied with blackish edgings and spots on the feathers; throat light reddish, with a few dusky margins to the feathers ..... *maculata* ♂, p. 389.
    *b''*. Head silvery brown, slightly tinged with rufous bars, the bases to the feathers black; throat and chest fulvescent, mottled with dusky-blackish centres and margins to the feathers ..... *guttata* ♂, p. 391.
  *b'*. Upper surface mottled with ashy whitish or white tips or bars at the end of the

feathers; throat and sides of body perfectly uniform.

*c''*. Head uniform; whitish tips to inner secondaries not very strongly pronounced ..... *nuchalis* ♂, p. 391.

*d''*. Head mottled with silvery-whitish tips to the feathers; whitish tips to inner secondaries and wing-coverts very strongly pronounced ..... *orientalis* ♂, p. 392.

*b*. Without a nuchal band of bright lilac.

*e''*. Flanks barred with dusky; upper surface mottled with reddish spots or tips to the feathers.

*a'''*. Throat light reddish or fulvous, slightly varied with dusky-brown cross bars and edgings to the feathers ..... *maculata* ♀, p. 390.

*b'''*. Throat fulvescent, closely mottled with blackish centres and margins to the feathers ..... *guttata* ♀, p. 391.

*f''*. Flanks perfectly uniform or with obsolete bars of dusky; under tail-coverts whitish, with narrow bars of dusky brown.

*c'''*. Head uniform ..... *nuchalis* ♀, p. 392.

*d'''*. Head mottled with silvery-whitish tips to the feathers ..... *orientalis* ♀, p. 392.

*g''*. Flanks uniform; under tail-coverts fawn-colour like the breast; throat pale, longitudinally streaked with dusky; head and hind neck uniform; back minutely spotted or streaked with white ..... *cerviniventris*, p. 393.

## 1. Chlamydodera maculata.

Calodera maculata, *Gould, P. Z. S.* 1836, p. 106; *id. Syn. B. Austr.* part i. (1837).

Chlamydera maculata, *Gould, B. Austr.* part i. (1837, cancelled); *id. op. cit.* iv. pl. 8 (1838); *Gray, Gen. B.* ii. p. 225 (1846); *Bp. Consp.* i. p. 370 (1850); *Diggles, Orn. Austr.* pl. (circ. 1867); *Gray, Hand-l. B.* i. p. 294, no. 4340 (1869).

Chlamydodera maculata, *Cab. Mus. Hein.* Th. i. p. 450 (1854); *Gould, Handb. B. Austr.* i. p. 450 (1865); *Ramsay, Ibis*, 1866, p. 329; *Elliot, Monogr. Parad.* pl. xxx. (1873); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 188 (1878).

Ptilorhynchus maculatus, *Schleg. Mus. P.-B., Coraces*, p. 119 (1867).

Chlamydodera occipitalis, *Gould, Ann. & Mag. Nat. Hist.* (4) xvi. p. 429 (1875); *id. Birds of New Guinea*, part x. (1879); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 188.

*Adult male.* General colour above dark brown, spotted all over with tawny buff near the end of each feather, these spots paling into whitish near the apex; the hind neck plain umber-brown, separating the nape-spot from the mantle; head tawny buff, mottled and, as it were, striped with dark-brown edges to the feathers; a few of the feathers of the crown with silvery-whitish tips; on the nape a band

of beautiful lilac plumes, somewhat elongated laterally; wing-coverts like the back, and spotted with tawny buff at the tips; the quills brown, edged with whity brown, and having pale spots at the ends of the secondaries, these spots being somewhat obsolete on the tips of the primaries; upper tail-coverts blackish brown, having, in addition to the fulvous bar at the end, a second subterminal bar of tawny buff; tail-feathers brown, edged with pale brown along both webs, and tipped with pale tawny buff; lores and ear-coverts, as well as the sides of the neck, tawny buff, like the head, and striped in the same manner with dusky-brown edges to the feathers; cheeks buffy whitish, the feathers edged with brown; throat fulvescent, shading off into whity brown on the chest, the breast and abdomen being uniform creamy buff; the sides of the body whitish, barred with dusky on the flanks and thighs; the throat and fore neck spotted with small bars of dusky; under tail-coverts pale tawny buff, with a few remains of dusky-brown bars; axillaries buffy whitish; under wing-coverts tawny buff, with a few dusky-brown bars; quills ashy brown below, pale yellow along the inner web; "bill and feet dusky brown; bare skin at the corner of the mouth thick, fleshy, prominent, and of a pinky flesh-colour; iris dark brown" (*Gould*). Total length 11·5 inches, culmen 1·1, wing 5·75, tail 4·25, tarsus 1·6.

*Adult female.* Very similar to the male, but without the lilac-coloured band on the nape, the latter being of the same colour as the head, and separated from the mantle by the hind neck, which is of a lighter and more umber-brown than the back. Total length 11·5 inches, culmen 1·1, wing 5·7, tail 4·5, tarsus 1·6.

The Spotted Bower-bird is found in Eastern Australia from Rockingham Bay to the Wide-Bay district, and occurs also in the interior province and Victoria. I regard Mr. Gould's *C. occipitalis* as only a very fine old male of the present species, distinguished by its longer crest-feathers.

| | | |
|---|---|---|
| *a, b.* ♂ ad. st. | Australia. | |
| *c.* ♀ imm. sk. | Australia. | |
| *d, e.* ♂ ♀ ad. sk. | Australia. | Gould Collection. |
| *f, g.* ♂ ♀ ad. sk. | Australia. | Sir T. Mitchell [P.]. |
| *h.* ♂ ad. sk. | South Australia. | Sydney Museum [P.]. |
| *i.* ♂ imm. sk. | Gayndah. | Sydney Museum [P.]. |
| *k.* ♂ ad. sk. | Queensland. | Gould Collection. |
| *l–n.* ♂ ad. sk. | Queensland (*J. T. Cockerell*). | F. Godman & O. Salvin, Esqrs. |
| *o.* ♂ ad. sk. | Port Albany. | Gould Collection. (Type of *C. occipitalis*.) |

### 2. Chlamydodera guttata.

Chlamydera guttata, *Gould, P. Z. S.* 1862, p. 162; *id. B. Austr., Suppl.* pl. 35 (1869); *Gray, Hand-l. B.* i. p. 294, no. 4340 (1869).
Chlamydodera guttata, *Gould, Handb. B. Austr.* i. p. 452 (1865); *Elliot, Monogr. Parad., Intr.* p. xxii (1873); *Ramsay, Pr. Linn. Soc. N. S. W.* ii. p. 188 (1878).

Very similar to *C. maculata*, but altogether darker above, and having the hind neck of the same dark brown as the back, with smaller tawny-buff spots; the under surface of the body is also darker. Total length 12 inches, culmen 1·05, wing 5·6, tail 4·25, tarsus 1·6.

The head of the male, collected by Mr. Stuart during his travels into the interior of Australia, likewise points to the present species being distinct from *C. maculata*. The lilac band is much richer in tint, and the head shows the whole of the feathers with silvery tips, instead of only a few thus marked as in *C. maculata*. The feathers of the hind neck resemble those of the female, and seem to indicate that the species has no band of earthy brown between the nape and the mantle as in its near ally.

The Large-spotted Bower-bird, as far as is known, appears to be confined to the interior of Australia, and to the north-west portion of the continent.

| | | |
|---|---|---|
| *a*. ♀ ad. sk. | N.W. Australia (*Gregory*). | Gould Collection. (Type of species.) |
| *b*. ♂ head. | Interior of Australia (*Stuart*). | Gould Collection. |

### 3. Chlamydodera nuchalis.

Ptilonorhynchus nuchalis, *Jard. & Selby, Ill. Orn.* ii. pl. 103.
Calodera nuchalis, *Gould, Syn. B. Austr.* pt. 1 (1837).
Chlamydera nuchalis, *Gould, B. Austr.* fol. pt. 1 (cancelled); *id. op. cit.* iv. pl. 9 (1838); *Gray, Gen. B.* ii. p. 235 (1846); *Bp. Consp.* i. p. 370 (1850); *Jacq. et Pucher. Voy. Pôle Sud.* texte, iii. p. 64 (1853); *Gray, Hand-l. B.* i. p. 294, no. 4339 (1869).
Chlamydère à nuque ornée, *Hombr. et Jacq. Voy. Pôle Sud,* Atlas, pl. 7. fig. 2.
Chlamydodera nuchalis, *Cab. Mus. Hein.* Th. i. p. 212 (1850); *Gould, Handb. B. Austr.* i. p. 448 (1865); *Elliot, Monogr. Parad.* pl. xxxi. (1873).
Ptilorhynchus nuchalis, *Schl. Mus. P.-B., Coraces*, p. 119 (1867).

*Adult male.* General colour above ashy brown, the feathers being dark brown edged with ashy brown, these margins being very distinct and broad on the rump and upper tail-coverts, the latter having indications of a subterminal whitish spot as well as the light tip; wing-coverts dark brown, and edged with ashy whitish just like the back; quills dark brown, margined with ashy, and tipped with a whitish spot, which is much broader on the secondaries; tail-feathers brown, margined with ashy on both webs, and barred with whitish at the tip; head brown, each feather having a minute spot of ashy at the tip; on the nape a band of beautiful lilac feathers, fringed with some stiffened brown feathers tipped with silvery whitish; hind neck uniform ashy brown, separating the nuchal band from the mantle; lores, sides of face, and under surface of body light ashy brown, becoming paler on the abdomen, where it inclines to creamy white; the lower flanks and thighs having faint indications of dusky bars, these becoming more zigzag and distinct in character on the

under tail-coverts, which are whitish like the abdomen; under wing-coverts and axillaries pale ashy brown, with a few indications of dusky bars; quills ashy brown below, pale yellowish along the inner web: "bill, legs, and irides brownish" (*Gould*). Total length 14·5 inches, culmen 1·4, wing 6·75, tail 5·5, tarsus 1·9.

*Adult female.* Differs from the male in wanting the lilac band on the nape, and in having the under surface faintly barred with dusky. Total length 13 inches, culmen 1·4, wing 6·75, tail 5·5, tarsus 1·9.

The Western Lilac-naped Bower-bird is found in Northern Australia from Port Darling and Port Essington to the north-western district.

| | | |
|---|---|---|
| *a.* ♂ ad. sk. | North Australia. | Gould Collection. |
| *b, c.* ♂ ♀ ad. st. | Port Essington. | Capt. Chambers [P.]. |
| *d.* ♂ juv. sk. | Depôt, Victoria River, N.W. Australia, Oct. 1855. | J. R. Elsey, Esq. [P.]. |
| *e.* ♂ imm. sk. | N.W. Australia, July 26, 1856. | J. R. Elsey, Esq. [P.]. |

### 4. Chlamydodera orientalis.

Chlamydera nuchalis (*nec J. & S.*), *Ramsay, Ibis*, 1865, p. 85.
Chlamydodera nuchalis (*nec J. & S.*), *Ramsay, Ibis*, 1866, p. 329; *id. P. Z. S.* 1878, p. 385; *id. Proc. Linn. Soc. N. S. W.* ii. p. 188 (1878); *Masters, t. c.* p. 273 (1878).
Chlamydodera orientalis, *Gould, Ann. Nat. Hist.* (5) iv. p. 74 (1879); *id. B. New Guinea*, pt. xi. (1880).

*Adult* (type of species). Very similar to *C. nuchalis*, but much more mottled above, with whitish tips to the feathers, this being very apparent on the head, which is not so uniform as in the last-named species. Total length 13·5 inches, culmen 1·5, wing 7, tail 5·5, tarsus 1·9.

*Adult female.* Similar to the male, but wanting the bright nuchal spot; the whitish spots on the back are also smaller and less pronounced. Total length 12·5 inches, culmen 1·35, wing 6·7, tail 5·2, tarsus 1·7.

*Young male.* Similar to the adult female at first, and acquiring the nuchal patch by a moult.

The Eastern Lilac-naped Bower-bird is a representative of *C. nuchalis* in Queensland.

| | | |
|---|---|---|
| *a.* ♀ ad. sk. | [New South Wales.] | Eyton Collection. |
| *b.* ♂ ad. sk. | Port Denison. | Gould Collection. (Type of species.) |
| *c.* ♀ ad. sk. | North Queensland. | Gould Collection. |
| *d.* ♂ imm. sk. | Queensland. | Horace Flower, Esq. [C.]. |
| *e.* ♀ ad. sk. | Rockingham Bay. | Gould Collection. |
| *f.* ♀ ad. sk. | Cape Upstart, May 1846. | J. B. Jukes, Esq. [P.]. |
| *g.* ♂ ad. st. | Queensland. | |
| *h, i.* ♂ ♀ ad. sk. | Queensland (*J. T. Cockerell*). | F. Godman & O. Salvin, Esqrs. [P.]. |

### 5. Chlamydodera cerviniventris.

Chlamydera cerviniventris, *Gould, P. Z. S.* 1850, p. 201; *Macgill. Voy. 'Rattlesnake,'* ii. p. 357 (1852); *Gray, P. Z. S.* 1858, p. 194; *id. Cat. B. New Guinea*, p. 59 (1859); *Gould, B. Austr., Suppl.* pl. 36 (1859); *Gray, Hand-l. B.* i. p. 294, no. 4342 (1869); *Diggles, Orn. Austr.* pl. fig. 2.

Chlamydodera cerviniventris, *Gould, Handb. B. Austr.* i. p. 454 (1865); *Elliot, Monogr. Parad.* pl. xxxii. (1873); *Salvad. & D'Albert. Ann. Mus. Civic. Genov.* vii. p. 828 (1875), viii. p. 39 (1876), ix. p. 193 (1876); *Sharpe, Journ. Linn. Soc.* xiii. p. 82 (1876); *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 393 (1876); *Sharpe, Journ. Linn. Soc.* xiv. p. 495 (1877); *id. tom. cit.* p. 687 (1879); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 188 (1877), iii. p. 102 (1878), p. 268 (1879), iv. p. 97 (1879); *D'Albert. Nuova Guinea*, pp. 237, 584 (1880); *Salvad. Orn. d. Papuasia*, p. 664 (1881).

Ptilorhynchus cerviniventris, *Giebel, Thes. Orn.* i. p. 657 (1872).

*Adult.* Above brown, all the feathers edged with ashy, giving a greyish shade to the upper parts, nearly uniform on the hind neck; crown of head, feathers above the eyes, and lores thickly but minutely dotted with triangular spots of buffy white; the whole of the back, scapulars, and wing-coverts distinctly streaked down the shaft with buffy white, dilating into a triangular spot at the tip, all the apical markings much larger and whiter on the wing-coverts, the primary-coverts edged with whitish near the tip; quills brown, externally washed with greyish, the secondaries tipped with white, forming a large spot at the tip of the innermost; rump and upper tail-coverts streaked like the back, but slightly more tinged with fulvous; tail-feathers brown, washed with greyish along the edge of the outer webs and tipped with white; entire sides of face and throat ashy brown, thickly streaked everywhere with light fawn-buff, all the feathers being mesially streaked with this colour; chest fawn-buff, mottled with ashy brown, with which colour the feathers are edged and slightly barred; all the rest of the under surface of the body clear fawn-colour, the flanks indistinctly mottled with indications of ashy-brown bars; sides of the upper breast brown, broadly streaked down the centre with fulvous; under wing-coverts fawn, like the underparts, the outermost of the greater series ashy brown, with pale fulvous bases, the lower surface of the quills light brown, edged with pale fulvous along the inner web; bill black; legs grey; iris black. Total length 11·3 inches, culmen 1·1, wing 5·65, tail 4·91, tarsus 1·7.

*Obs.* These birds vary a good deal, the spotting on the back being much less in some than in others; those which have it less developed have nearly the entire head and neck uniform, only the fore part of the crown being spotted. Whether these ar younger birds I am unable to say.

The Fawn-breasted Bower-bird inhabits the Cape York Peninsula and the islands of Torres Straits, as well as South-eastern New Guinea in the neighbourhood of Port Moresby.

| | | |
|---|---|---|
| *a*. Ad. sk. | Cape York. | J. Macgillivray, Esq. [C.]. (Type of species.) |

| | | |
|---|---|---|
| *b.* Ad. sk. | Cape York. | Gould Collection. |
| *c.* Ad. sk. | Cape York. | Purchased. |
| *d.* Ad. sk. | Cape York (*J. T. Cockerell*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *e.* Ad. sk. | Rockingham Bay. | Gould Collection. |
| *f.* Ad.; *g*, *h.* Juv. sk. | Port Moresby, S.E. New Guinea. | Rev. J. Macfarlane [C.]. |
| *i.* Ad. sk. | Port Moresby (*Broadbent*). | Gould Collection. |

## 64. SCENOPÆUS.

Type.

Scenopæus, *Ramsay, P. Z. S.* 1875, p. 591 ..... S. dentirostris.

*Range.* Confined to the Rockingham Bay district of Australia.

### 1. Scenopæus dentirostris.

Scenopæus dentirostris, *Ramsay, P. Z. S.* 1875, p. 591; *id. Proc. Linn. Soc. N. S. Wales*, ii. p. 188; *Gould, B. New Guinea*, part x. (1879).

*Adult* (type of species). General colour above dark olive-brown; wings a little more ruddy brown than the back, the quills dusky on the inner web; tail olive-brown like the back; ear-coverts dusky brown, streaked with mesial shaft-lines of reddish brown, the sides of the neck similarly streaked with broader pale streaks; under surface of body fulvous, the feathers with broad margins of dusky brown, imparting a streaked appearance, less strongly marked on the abdomen; under wing-coverts and axillaries deeper fulvous, of a tawny shade, slightly mottled with a few dusky edgings to the feathers; quills dark brown below, yellowish along the edge of the inner web. Total length 10·5 inches, culmen 1·15, wing 5·6, tail 3·7, tarsus 1·3. (*Mus. E. P. Ramsay.*)

The Tooth-billed Bower-bird has only once been obtained, in North-eastern Queensland, on the Bellenden-ker and Sea-view ranges.

## 65. AMBLYORNIS.

Type.

Amblyornis, *Elliot, Ibis*, 1872, p. 113 ..... A. inornata.

*Range.* Confined to North-western New Guinea.

### 1. Amblyornis inornata.

Ptilorhynchus inornatus, *Schlegel, N. T. D.* iv. p. 51 (1871, *ex Rosenb. MSS.*); *Rosenb. Reist. n. Geelvinkb.* pp. 102, 143 (1875).

Amblyornis inornata, *Elliot, Ibis*, 1872, p. 114; *id. Monogr. Parad.* pl. 37 (1873); *Salvad. Ann. Mus. Civic. Genov.* vii. p. 781 (1875); *id. op. cit.* ix. p. 193 (1876); *Beccari, op. cit.* ix. p. 382, tav. viii. (1877); *id. Ibis*, 1877, p. 379; *Salvad. Ann. Mus. Civic. Genov.* x. p. 151 (1877); *Gould, B. New Guinea*, part ix. (1879); *D'Albert. Nuova Guinea*, p. 581 (1880); *Salvad. Orn. della Papuasia*, p. 666 (1881).

Amblyornis inornatus, *Sclater, P. Z. S.* 1873, p. 697.

*Adult.* General colour above brown, rather more reddish on the head and mantle; wing-coverts like the back; quills dusky brown, externally of the same colour as the back; tail dusky brown, washed with the brown colour of the back; lores and sides of face dull brown; throat and under surface of body orange-brown, rather lighter on the abdomen; sides of breast washed with the same brown as the back; axillaries and under wing-coverts brighter orange-buff; quills light brown below, pale buff along the edge of the inner web; "bill black; feet pale lead-colour; iris chestnut" (*D'Albertis*). Total length 9·5 inches, culmen 1·1, wing 5·05, tail 3·4, tarsus 1·4.

The Gardener Bower-bird is apparently confined to the Arfak Mountains in North-western New Guinea. For an account of its habits, *cf.* Beccari, Ann. Mus. Civic. Genov. ix. p. 382, and Gould's Birds of New Guinea, part ix.

| | | |
|---|---|---|
| *a*, *b*. Ad. sk. | Arfak Mountains. | Gould Collection. |
| *c*, *d*. Ad. sk. | Arfak Mountains. | Eyton Collection. |

## 66. SERICULUS.

Type.
Sericulus, *Swains. Zool. Journ.* i. p. 478 (1825)..... S. melinus.

*Range.* Confined to Australia.

### 1. Sericulus melinus.

Yellow-bellied Thrush, *Lath. Gen. Syn. Suppl.* ii. p. 187 (1801).
Turdus melinus, *Lath. Ind. Orn. Suppl.* ii. p. xliv (1801); *Vieill. N. Dict. d'Hist. Nat.* xx. p. 243 (1818); *Bonn. et Vieill. Enc. Méth.* ii. p. 647 (1823).
Meliphaga chrysocephala, *Lewin, Birds of New Holl.* p. 10, pl. vi. (1808).
Turdus mellinus, *Steph. Gen. Zool.* x. p. 240 (1817).
Golden-crowned Honey-eater, *Lath. Gen. Hist.* iv. p. 184 (1822).
Oriolus regens, *Quoy et Gaim. Voy. de l'Uranie*, p. 105, pl. xxii. (1824); *Temm. Pl. Col.* ii. pl. 320 (1825); *Wagl. Syst. Av.*, Oriolus, sp. 2 (1829).
Sericulus chrysocephalus, *Swains. Zool. Journ.* i. p. 478 (1825); *Vig. & Horsf. Tr. Linn. Soc.* xv. p. 326 (1826); *Steph. Gen. Zool.* xiv. p. 266 (1826); *Less. Traité*, p. 340 (1831); *Swains. Classif. B.* ii. p. 237 (1837); *Jard. & Selby, Ill. Orn.* i. pls. xviii., xix., xx.; *Gould, B. Austr.* iv. pl. 12 (1838).
Sericulus regens, *Less. Voy. Coquille, Zool.* i. p. 640, pl. 20 (1826); *id. Man. Orn.* i. p. 256 (1828); *id. Ois. Parad. Syn.* p. 21; *id. Hist. Nat. Ois., Parad.* pls. 26, 27 (1835).
Sericulus magnirostris, *Gould, P. Z. S.* 1837, p. 145.
Sericulus mellinus, *Gray, Gen. B.* i. p. 233 (1845); *Bp. Consp.* i. p. 349 (1850).
Sericulus melinus, *Gould, Handb. B. Austr.* i. p. 456 (1865); *Ramsay, Ibis*, 1866, pp. 325, 330; *Schl. Mus. Pays-Bas, Coraces*, p. 99 (1867); *Ramsay, Ibis*, 1867, pp. 415, 456; *Gray, Hand-l. B.* i. p. 293, no. 4333 (1869); *Elliot, Monogr. Parad.* pl. xxxii (1873); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 188 (1876).

*Adult male.* Head, neck, and upper mantle of a velvety texture

and of a brilliant orange-yellow, deepening on the crown into reddish orange; remainder of mantle and entire back, as well as the tail, black; wing-coverts black, as also the primary-coverts; first two primaries black; remainder of the primaries orange-yellow, except along the outer webs and at the tip, encroaching down the inner web; secondaries orange-yellow, tipped with black, excepting the innermost; lores, eyebrow, sides of face, and neck, as well as the entire under surface of the body and under tail-coverts, black; under wing-coverts black, the greater series golden yellow, like the lining of the quills; "bill yellow; legs and feet black; iris pale yellow" (*Gould*). Total length 9·5 inches, culmen 1·15, wing 5·1, tail 4·75, tarsus 1·45.

*Adult female.* Different from the male. General colour above brown, mottled with white centres to the feathers, edged with black; scapulars like the back; wing-coverts and quills plain brown, the latter dusky brown on the inner webs, the innermost secondaries with an irregular white spot at the tip; upper tail-coverts brown, the longer ones with a mesial streak of whitish; tail-feathers brown, more dusky on the inner web; forehead light brown, mottled with minute dusky tips to the feathers; hinder crown and occiput black; sides of head, eyebrow, and nape reddish brown, mottled with dusky edges to the feathers; hind neck whitish, with dusky margins, followed by a patch of black across the lower hind neck; lores and base of forehead buffy whitish; cheeks reddish brown, like the sides of the face; chin and sides of throat light reddish, with the centre and lower part of throat black; remainder of under surface of body whity brown, uniform on the abdomen, the breast and sides of the body spotted with blackish-brown margins to the feathers; the thighs and under tail-coverts reddish brown; under wing-coverts and axillaries like the breast and barred across with dusky brown; quills brown below, light reddish along the inner web; "bill and feet black; iris brown" (*Gould*). Total length 10·5 inches, culmen 1·15, wing 5·35, tail 4·5, tarsus 1·5.

The Regent-bird is found in New South Wales, ranging along the east coast of Australia as high as the Wide-Bay district and Port Denison.

| | | |
|---|---|---|
| *a.* ♀ ad. sk. | Brushes of the Hunter, Sept. 1839. | J. Gould, Esq. |
| *b, c.* ♂ ♀ ad. sk. | Queensland. | Purchased. |
| *d, e.* ♂ ♀ ad. sk. | Queensland (*J. T. Cockerell*). | F. Godman and O. Salvin, Esqrs. [P.]. |
| *f.* ♂ ad. sk. | Australia. | Gould Collection. |
| *g.* ♂ ad. sk. | Australia. | Sir George Grey [P.]. |
| *h.* ♂ juv. sk. | Australia. | J. Cunningham, Esq. [P.]. |

# ADDENDA.

Add:— Page 18. **Chloropsis hardwickii.**

*s.* ♂ ad. sk. Assam. Gould Collection.

Add:— Page 20. **Chloropsis aurifrons.**

*s.* ♂ ad. sk. Siam (*Schomburgk*). Gould Collection.

Add:— Page 22. **Chloropsis malabarica.**

*f.* ♂ ad. sk. Coonoor. Gould Collection.

Add:— Page 24. **Chloropsis zosterops.**

*u.* ♂ ad. sk. Singapore (*Wallace*). Gould Collection.
*v.* ♂ ad. sk. Borneo. Gould Collection.

Add:— Page 25. **Chloropsis jerdoni.**

*l, m.* ♂ ♀ ad. sk. Maunbhoom (*Capt. Beavan*). Gould Collection.

Add:— Page 27. **Chloropsis nigricollis.**

*f, g.* ♂ ad. sk. Java (*Kuhl and Hasselt*). Gould Collection.
*h.* ♀ ad. sk. Buitenzorg, Java (*Leyden Mus.*). Gould Collection.

Add:— Page 28. **Chloropsis chlorocephala.**

*h.* ♂ ad. sk. Siam (*Mouhot*). Gould Collection.

Add:— Page 30. **Chloropsis icterocephala.**

*m.* ♀ ad. sk. Sumatra. Gould Collection.
*n.* ♂ ad. sk. Singapore. Gould Collection.

Add:— Page 31. **Chloropsis viridinucha.**

*d.* ♀ ad. sk. Borneo. Gould Collection.

Add:— Page 32. **Chloropsis cyanopogon.**

| | | |
|---|---|---|
| *m, n.* ♂ ♀ ad. sk. | Singapore. | Gould Collection. |

Add:— Page 35. **Hypsipetes psoroides.**

| | | |
|---|---|---|
| *v, w, x.* Ad. sk. | "Chugher Serai" (*Griffith*). | India Museum. |

I have not been able to find this locality in any map; but the skins still bear Griffith's original label, and are marked in the same way as his Afghanistan skins usually are. I believe, therefore, that the locality is somewhere in Afghanistan; and if this turns out to be the case, the westward range of the species will be much extended.

Add:— Page 41. **Hypsipetes perniger.**

| | | |
|---|---|---|
| *c.* Ad. sk. | Hainan, Feb. 1868 (*R. Swinhoe*). | Gould Collection. |

Add:— Page 42. **Hypsipetes amaurotis.**

| | | |
|---|---|---|
| *f.* ♀ ad. sk. | Hakodadi, Japan, Feb. 4, 1865 (*H. Whitely*). | Gould Collection. |
| *g.* ♂ ad. sk. | Hakodadi, Japan, Oct. 26, 1864 (*H. Whitely*). | Gould Collection. |
| *h.* Ad. sk. | Chusan. | Gould Collection. |

Add:— Page 52. **Hemixus cinereus.**

| | | |
|---|---|---|
| *c.* Ad. sk. | Malacca. | Capt. Stackhouse Pinwill [P.]. |

Add:— Page 52. **Hemixus malaccensis.**

| | | |
|---|---|---|
| *g.* Ad. sk. | Malacca (*Wallace*). | Gould Collection. |

Add:— Page 55. **Iole olivacea.**

| | | |
|---|---|---|
| *l.* Ad. sk. | Borneo. | Gould Collection. |

Add:— Page 58. **Iole philippensis.**

| | | |
|---|---|---|
| *d.* Ad. sk. | Philippine Islands. | Gould Collection. |

Add:— Page 59. **Iole macclellandi.**

| | | |
|---|---|---|
| *n.* Ad. sk. | Khasia Hills (*Jerdon*). | Gould Collection. |

Add:— Page 65. **Micropus melanocephalus.**

| | | |
|---|---|---|
| *w.* Ad. sk. | Malacca (*Wallace*). | Gould Collection. |

Add:— Page 74. **Criniger phæocephalus.**

| | | |
|---|---|---|
| *k.* ♂ ad. sk. | Malacca (*Wallace*). | Gould Collection. |

Add:— Page 80. **Criniger gutturalis.**

| | | |
|---|---|---|
| *t.* ♀ ad. sk. | Malacca (*Wallace*). | Gould Collection. |

Add:— Page 86. **Criniger affinis.**

| | | |
|---|---|---|
| *e.* Ad. sk. | E. Ceram (*Wallace*). | Gould Collection. |
| *f.* Ad. sk. | Ceram (*Wallace*). | Gould Collection. |

Add:— Page 89. **Tricholestes criniger.**

| | | |
|---|---|---|
| *m.* Ad. sk. | Malacca (*Wallace*). | Gould Collection. |

Add:— Page 91. **Alcurus striatus.**

| | | |
|---|---|---|
| *i.* Ad., *k.* Juv. sk. | Darjiling. | Gould Collection. |
| *l.* Ad. sk. | Nepal. | Gould Collection. |

Add:— Page 93. **Trachycomus ochrocephalus.**

| | | |
|---|---|---|
| *m.* Ad. sk. | Java (*Horsfield*). | India Museum. |

Page 102. Add:—

### 10*a*. Xenocichla multicolor.

Criniger (Xenocichla) multicolor, *Bocage, Jorn. Lisb.* viii. p. 54 (1880).

Upper parts olivaceous ashy, shaded and varied with ferruginous; upper part of the head and neck rufous varied with olivaceous; upper tail-coverts and tail bright ferruginous; smaller wing-coverts like the back, the others rufous, forming a large band on the wing; quills blackish, with their outer webs olivaceous washed with rufous, the inner secondaries rufous on their ends; cheeks olivaceous grey; a darker band, inclining to blackish, from the base of the bill to below the auricular region. Below white, washed with sulphur-yellow on the throat and in the middle of the abdomen; breast brighter yellow in the centre and irregularly tinged with olivaceous and rufous on the sides; flanks more strongly shaded with rufous; lower tail-coverts yellow. Bill stout and long, compressed towards the point, having at the base some long and rigid bristles, blackish, with the edges of the two mandibles paler in tint. Tarsi and toes yellow, the outer digit united to the median as far as the base of the last phalanx; nails strong and curved. Total length 220 millim., wing 105, tail 98, culmen 23, tarsus 24.

The Loango Bulbul has been recently described by Prof. Bocage from two specimens procured on the Loango coast by MM. Lucan and Petit. Though these birds were apparently not fully adult, the species would seem to be new to science. It belongs to the group of *X. scandens*.

Page 108. Add :—

### 2*a*. Andropadus minor.

Andropadus minor, *Bocage, Jorn. Lisb.* viii. p. 55 (1880).

General colour olivaceous brown, shaded with maroon on the tail, the shafts of the tail-feathers of this latter colour; below the tints are paler, inclining to ashy on the throat and washed with yellowish on the abdomen: quills brown, edged externally with olivaceous brown and internally with greenish yellow; bill blackish, feeble, a little curved, compressed towards the point and having three or four distinct denticulations at the end of the upper mandible; feet blackish. Total length 135 millim., wing 68, tail 60, culmen 13, tarsus 17. (*Bocage, l. c.*)

Bocage's Bulbul was discovered at Massabe, on the Loango coast, by Messrs. Lucan and Petit. The type is in the Lisbon Museum, and I have never seen the species.

Add :— Page 127. **Pycnonotus atricapillus.**

| | | |
|---|---|---|
| *e*. Ad. sk. | Tavoy (*Briggs*). | Gould Collection. |

Add :— Page 130. **Pycnonotus intermedius.**

| | | |
|---|---|---|
| *g*. ♂ ad. sk. | Himalayas. | Gould Collection. |
| *h*. Ad. sk. | Peshawur. | Lieut.-Col. Way. |

Add :— Page 131. **Pycnonotus tricolor.**

| | | |
|---|---|---|
| *h*. Ad. sk. | Quilombo, Angola (*A. Heath*). | R. B. Sharpe, Esq. [P.]. |

Add :— Page 135. **Pycnonotus xanthopygus.**

| | | |
|---|---|---|
| *d*. ♀ ad. sk. | Jericho, Jan. 1, 1864 (*Tristram*). | Gould Collection. |

Add :— Page 136. **Pycnonotus leucotis.**

| | | |
|---|---|---|
| *q*. Ad. sk. | India. | Gould Collection. |
| *r*. ♂ ad. sk. | Lahore. | Gould Collection. |
| *s*. ♂ ad. sk. | Kandahar, Dec. 19, 1880. | Lieut.-Col. Swinhoe [P.]. |
| *t*, *u*. ♀ ad. sk. | Kandahar, Feb. 1881. | Lieut.-Col. Swinhoe [P.]. |

Add:— Page 138. **Pycnonotus bimaculatus.**

| | | |
|---|---|---|
| *h.* Ad. sk. | Java. | Gould Collection. |
| *i.* Ad. sk. | W. Java (*Wallace*). | Gould Collection. |

Add:— Page 140. **Pycnonotus analis.**

| | | |
|---|---|---|
| *a'.* Ad. sk. | Penang (*Cantor*). | India Museum. |

Add:— Page 143. **Pycnonotus flavescens.**

| | | |
|---|---|---|
| *d, e, f.* Ad. sk. | Khasia Hills (*Jerdon*). | Gould Collection. |

Add:— Page 143. **Pycnonotus luteolus.**

| | | |
|---|---|---|
| *h.* Ad. sk. | Madras (*Jerdon*). | Gould Collection. |

Add:— Page 144. **Pycnonotus finlaysoni.**

| | | |
|---|---|---|
| *n.* Ad. sk. | Tavoy (*Briggs*). | Gould Collection. |

Add:— Page 146. **Pycnonotus barbatus.**

| | | |
|---|---|---|
| *y.* Ad. sk. | Tangier. | Gould Collection. |
| *z.* ♀ ad. sk. | Oran, Algeria. | J. H. Gurney, Esq., Jun. [P.]. |

Add:— Page 148. **Pycnonotus gabonensis.**

| | | |
|---|---|---|
| *d.* Skeleton. | Gaboon. | Purchased. |

Add:— Page 149. **Pycnonotus sinensis.**

| | | |
|---|---|---|
| *h.* Ad. sk. | Hong-Kong. | Gould Collection. |
| *i, k.* Ad. sk. | Fokien. | Gould Collection. |
| *l.* ♂ ad. sk. | Shanghai (*Reeves*). | Gould Collection. |

Add:— Page 151. **Pycnonotus blanfordi.**

| | | |
|---|---|---|
| *h.* Ad. sk. | Upper Burmah. | Gould Collection. |

Add:— Page 152. **Pycnonotus plumosus.**

| | | |
|---|---|---|
| *l.* ♀ ad. sk. | Malacca (*Wallace*). | Gould Collection. |

Page 155. **Pycnonotus pusillus.**

As this name has already been employed (cf. *P. hæmorrhous*, p. 124) it cannot stand, and I propose the name of *P. salvadorii* for the small Malayan species.

Add:— Page 157. **Otocompsa jocosa.**

| | | |
|---|---|---|
| *b'*. Ad. sk. | Himalayas. | Gould Collection. |
| *c'*. Ad. sk. | China (*A. Leith Adams*). | Gould Collection. |
| *d'*. Ad. sk. | Penang (*Cantor*). | India Museum. |

Add:— Page 159. **Otocompsa emeria.**

| | | |
|---|---|---|
| *n*. Ad. sk. | South India. | Gould Collection. |

Add:— Page 167. **Rubigula dispar.**

| | | |
|---|---|---|
| *f*. Ad. sk. | Java. | Gould Collection. |

Add:— Page 167. **Rubigula gularis.**

| | | |
|---|---|---|
| *e*. Ad. sk. | Travancore. | Gould Collection. (Type of species.) |

Add:— Page 168. **Rubigula melanictera.**

| | | |
|---|---|---|
| *e*. Ad. sk. | Ceylon. | Gould Collection. |

Add:— Page 169. **Rubigula cyaniventris.**

| | | |
|---|---|---|
| *i*. ♂ ad. sk. | Malacca (*Wallace*). | Gould Collection. |

Add:— Page 171. **Rubigula webberi.**

| | | |
|---|---|---|
| *d*. Ad. sk. | Malacca. | Capt. Stackhouse Pinwill [P.]. |

Add:— Page 172. **Spizixus canifrons.**

| | | |
|---|---|---|
| *e*. Ad.; *f*. Juv. sk. | Khasia Hills (*Jerdon*). | Gould Collection. |

Add:— Page 173. **Spizixus cinereicapillus.**

| | | |
|---|---|---|
| *b*. ♂ ad. sk. | Formosa, Dec. 1865 (*R. Swinhoe*). | Gould Collection. |
| *c*. Ad. sk. | Fungshan, Formosa, Jan. 1866 (*R. Swinhoe*). | Gould Collection. |

Page 183. Add:—

2 *a*. **Cinnicerthia peruviana.**

Presbys peruvianus, *Cab. J. f. O.* 1873, p. 317; *Tacz. P. Z. S.* 1874, p. 505.

Much smaller than *Presbys unibrunneus*, which it resembles in

its colour, but the brown has less of the reddish-brown shade. The plumes round the eye, especially on the under and hinder parts, white. Behind the eye a broad streak of olive-grey. The markings of the wings and tail are characteristic of the present species; these are throughout barred with black, as in the species of *Troglodytes*. Bill and feet dark. Total length about 5·2 inches, bill from front 0·55, wing 2·55, tail 2·3, tarsus 0·95.

The Peruvian Brown Wren was discovered by M. Constantin Jelski at Maraynioc in Peru. I have never seen the species.

Page 184, footnote. Add :—

**Odontorhynchus cinereus.**

Upper surface of body and outer aspect of wings ashy grey, more rufescent on the fore part of the crown; an ill-defined stripe behind the eye, sides of the head, bend of the wing, lower wing-coverts, and whole of the belly white, washed with isabelline; under tail-coverts transversely banded with black; tail-feathers uniform with the back, the lateral ones whitish on their margins, all having narrow transverse bars of blackish brown, about ten in number; bill and feet blackish horn-colour. Total length 4″ 6‴ wings 2″, tail 2″, bill from nostrils $3\frac{3}{4}$‴, from gape $7\frac{1}{2}$‴, tarsus 6‴.

Page 207. **Thryophilus leucotis.**

It should be noted that M. Taczanowski (P. Z. S. 1874, p. 505, 1880, p. 191) refers to *Thryothorus audax*, Tschudi, as a true *Troglodytes*. I am still in ignorance as to the affinities of Tschudi's species.

Page 235. Add :—

23 *a*. **Thryothorus cantator.**

Thryothorus cantator, *Tacz. P. Z. S.* 1874, pp. 130, 504.

Above cinnamon; the head ashy grey; the back tinged with brown; cheeks dull ashy grey; throat white, the breast and belly greyish fulvous; quills dusky blackish, edged with cinnamon; tail-feathers greyish rufous, banded with black; bill blackish, with the mandible yellow; feet and iris brown. Total length 5·9 inches, wing 2·8, tail 2·65, tarsus 0·9, bill from gape 0·8.

Jelski's Wren was discovered in Central Peru by M. Constantin Jelski. I have never seen an example; but Taczanowski states that the species is close to *T. coraya*, but differs in having no streaks on the sides of the face, in the different colour of the head and under surface of the body, in the bands on the tail being rufous instead of ashy, and in the considerably shorter bill. It is apparently closely allied to the bird I have called in this volume *T. amazonicus*.

Add :— Page 242. **Cistothorus paludicola.**

| | | |
|---|---|---|
| *h*, *i*, *k*, *l*. Ad. sk. | Clear Lake, California. | Lord Walsingham [P.]. |

Add :— Page 244. **Cistothorus platensis.**

Troglodytes chilensis, *Less. Voy. Coquille*, i. p. 665.

Page 251. **Troglodytes insularis.**

*For* "Sorocco" Island *read* "Socorro."

Add :— Page 255. **Troglodytes musculus.**

Troglodytes guereza, *Cuv. MS. in Mus. Paris*; *Less. Rev. Zool.* 1840, p. 264 (spec. examined).
Troglodytes furvus, *Scl. & Salv. P. Z. S.* 1879, p. 593.

Add :— Page 269. **Anorthura troglodytes.**

| | | |
|---|---|---|
| *w*, *x*. Skeletons. | | Purchased. |
| *y*. Sternum. | | John Ray, Esq. [P.]. |
| *z*. Skull. | | John Ray, Esq. [P.]. |

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NATURAL HISTORY

END OF THE SIXTH VOLUME.

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J.G. Keulemans del. Mintern Bros. imp

*Chloropsis viridinucha.*

J G Keulemans del. Mintern Bros imp.

*Hemipus cinereus.*

$\frac{2}{3}$

J.G Keulemans del. Mintern Bros imp

*Iole rufigularis.*

J.G Keulmans del. Mintern Bros imp.

*Criniger verreauxi.*

J G Keuleumans del

Mintern Bros imp

*Criniger frater.*

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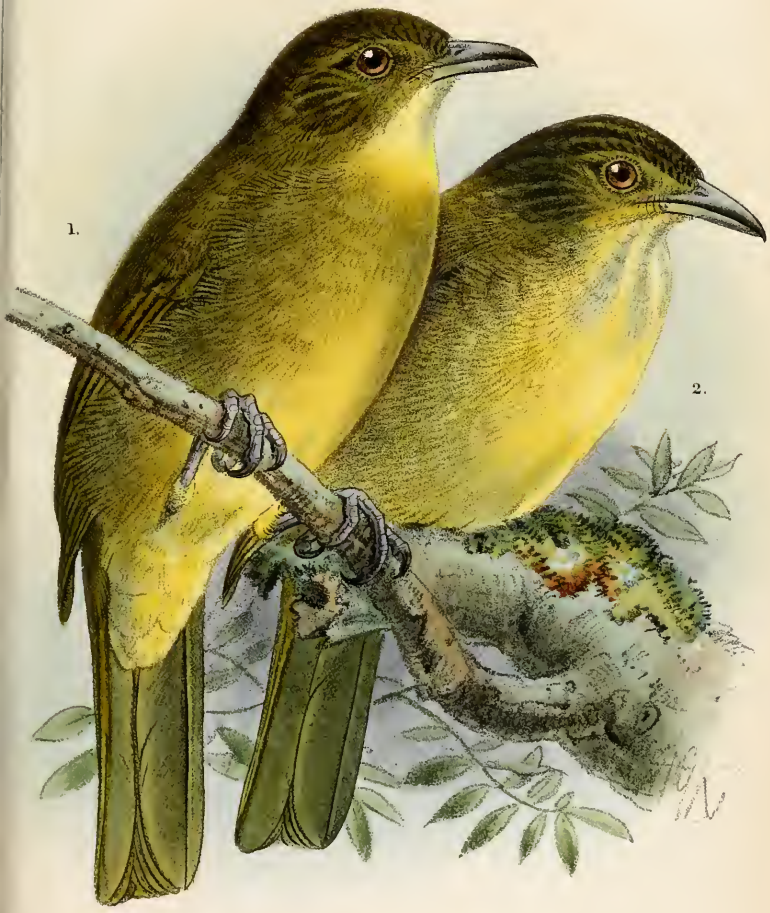
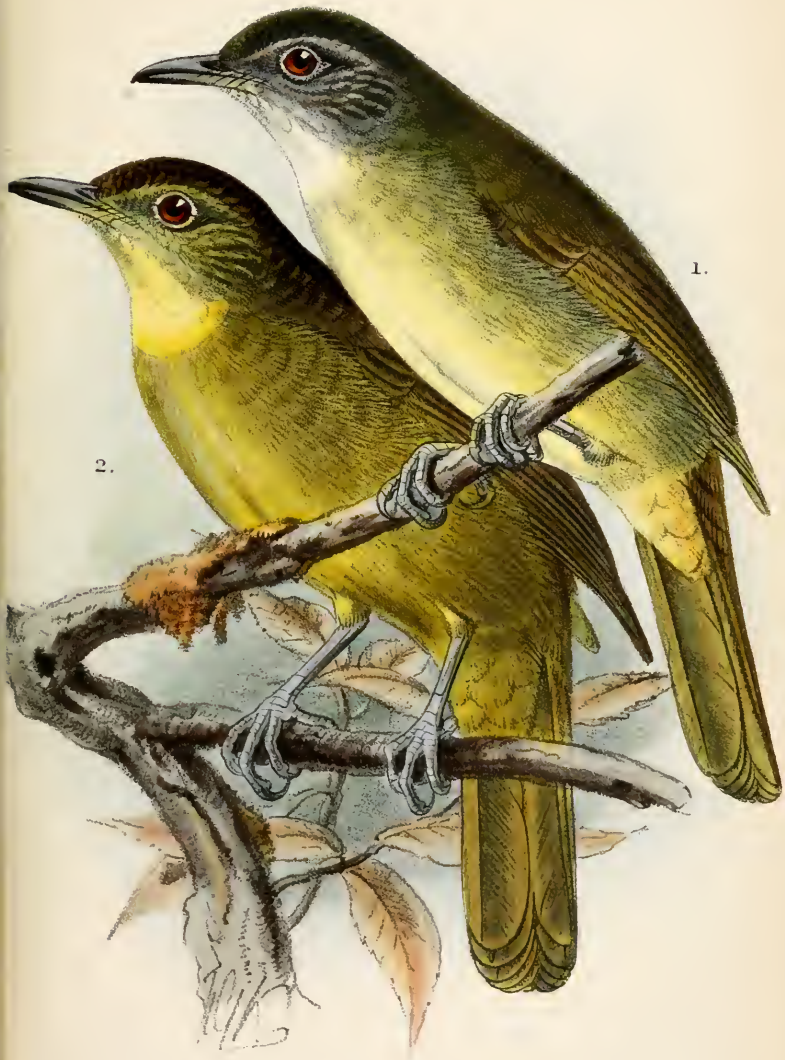


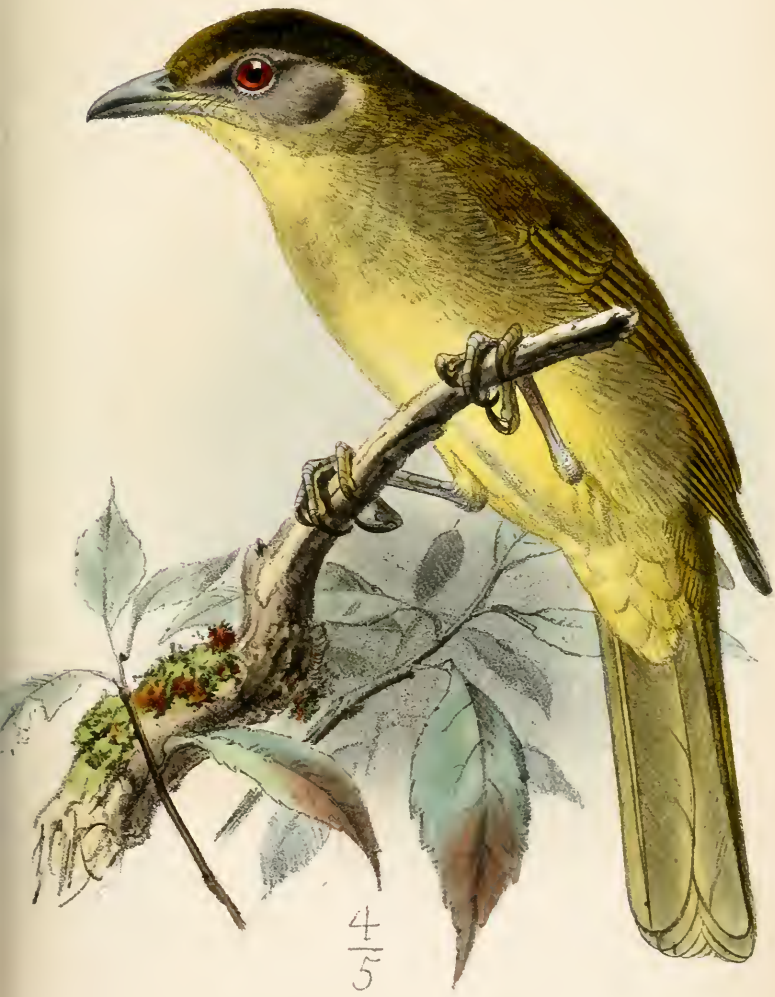

J.G. Keulemans del. Mintern Bros imp.

*1. Criniger finschi.*
*2. „ palawanensis.*




J G Keulemans del Mintern Bros imp

*1. Xenocichla albigularis.*
*2. " olivacea.*



J.G Keulemans del

Mintern Bros imp.

*Chlorocichla occidentalis.*

J.G.Keulemans del. Mintern Bros imp

*Pycnonotus simplex.*

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J.G.Keulemans del.

Mintern Bros. imp.

*Pycnonotus pusillus.*

J. G Keulemans del. Mintern Bros imp.

*Cinnicerthia olivascens.*

J.G.Keulemans del. Mintern Bros imp

*1. Campylorhynchus pardus.*
*2. „ gularis.*

J G Keulemans del

Mintern Bros imp

*Thryothorus bairdi.*

J.G.Keulemans del

Mintern Bros. imp

*1. Thryothorus fasciaiventris.*
*2. " melanogaster.*

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G.Keulemans, del. Mintern Bros imp.

*1. Thryothorus amazonicus.*
*2. „ griseipectus.*

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J.G.Keulemans del. Mintern Bros. imp

*1. Anorthura fumigata.*
*2. " pacifica.*

NATURAL HISTO

J.G.Keulemans del. Mintern Bros imp

*Uropsila leucogastra.*

J.G.Keulemans del

Mintern Bros. imp

*1. Cyphorhinus salvini.*
*2. " modulator.*

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